SUMMARY OF

STATE BIENNIAL REPORTS OF

WELLHEAD PROTECTION PROGRAM PROGRESS

(As Required by Section 1428 (g) of the SDWA amendments of 1986)

OCTOBER 1995 THROUGH SEPTEMBER 1997

The purpose of this report is to provide information on the progress States have made in establishing and implementing their Wellhead Protection Programs through FY1997

I. Background

The 1986 Amendments to the Safe Drinking Water Act (SDWA) established the Wellhead Protection program which requires each State to develop comprehensive programs to protect public water supply wells from contaminants that could be harmful to human health. Section 1428 of the Act specifies certain minimum components for a State Wellhead Protection (WHP) program which include: delineating wellhead protection areas, inventorying potential sources of contamination, developing a management strategy to protect each water supply from potential sources of contamination, and developing contingency plans in preparation for emergency situations. The U.S. Environmental Protection Agency (EPA) is responsible for approving State WHP programs and for providing technical support to State and local governments to help implement these programs.

Subsection 1428 (g) of the SDWA requires that each State with an EPA-approved WHP program ". . .submit to the Administrator a biennial status report describing the State's progress in implementing the program." This report summarizes the reports received from the States.

This national summary provides information about each State's progress toward implementing its WHP program and will help foster the opportunity for the exchange of information between States about tools, techniques, and approaches. Furthermore, since the reporting rate is very high, this summary establishes a national benchmark that can be used to compare future progress in the implementation of not only WHP, but also in the implementation of the recently established State Source Water Assessment (SWA) and Protection (SWP) Programs.

The U.S. Congress in 1996 amended the SDWA again, adding and modifying several sections of the law. Section 1428 requiring State Wellhead Protection programs and the associated biennial reporting remained essentially unchanged. The new 1996 Amendments provided a source of funding for drinking water protection programs and also established new Source Water Assessment (SWA) provisions in addition to the WHP requirements. Under these new provisions, each state is required to create a Source Water Assessment Program that describes how the State will assess all of its public water supplies - including both ground water and surface water sources - utilizing several of the basic wellhead protection steps plus two new steps. Assessments must be completed for all public water systems by May 2003. Part IV of this report contains a brief description of the required steps for Source Water Assessments and discusses how future State Wellhead Protection biennial reports may incorporate new information on Source Water Assessment and Protection progress.

II. Measuring National Wellhead Protection Program Progress

Over the years since the 1986 Wellhead Protection provisions of SWDA were enacted, States have developed WHP programs and submitted them to EPA for approval. Although the reporting guidances have been modified for each period, this WHP biennial period reflects Community Water System-oriented data (CWS) which will be the cornerstone for future reporting. Also, the data include voluntarily reported Noncommunity Water System (NCWS)

information. Both CWS and NCWS Public Water Supply (PWS) data reported for this period reflect a tracking consistency for all three biennial periods ending FY93, FY95 and FY97.

The data in the national summary were obtained from individual state reports on the number of (PWSs) that have completed one or more of the primary WHP steps (i.e., delineation, source inventory, management measures, and contingency plans). In addition, States reported on the number of PWSs that had not yet undertaken one of the primary steps, but had in the State's opinion, "gotten started" in the WHP endeavor by undertaking some preliminary work such as forming a local team to pursue the effort. These four primary steps, plus the "getting started" step (step 1) are defined in Table 1.

Table 1 - Wellhead Protection Program Steps -Definitions

Steps of WHP	Description/Definitions
Step 1	**Getting Started - Preliminary work/planning team**
Step 2	**Delineation - Define land area to be protected**
Step 3	**Source Identification - Identify and locate potential sources of contaminants**
Step 4	**Source Management - Manage contaminant sources in the protection area**
Step 5	**Contingency Planning - Plan for emergencies and for the future**

Table 2, on the next page, shows that 49 States and Territories have currently EPA-approved Wellhead Protection Programs, including Guam and Puerto Rico. In 1990, the first 13 States obtained approval of their programs and since then, additional State programs have been approved in every subsequent year. Florida's WHP program was approved in 1998, and Pennsylvania and California obtained approval of their programs in 1999.

Table 2 - State WHP Program Approval Dates and Date of States Reporting Data (<u>in bold</u>).

States and Territories with Federally Approved* Wellhead Protection Programs (by year)									
(13)	(18)	(27)	(31)	(37)	(41)	(45)	(46)	(47)	(49)
									CA PA
								FL	FL
							WY	WY	WY
						ID KS MN OR	ID KS **MN** OR	ID KS MN OR	ID KS MN OR
					HI IN MO	HI IN MO	**HI** **IN** MO	HI IN MO	HI IN MO
					NC	NC	**NC**	NC	NC
				CO MI MT	CO MI MT	CO MI MT	**CO** **MI** **MT**	CO MI MT	CO MI MT
				NV TN WA	NV TN WA	NV TN WA	**NV** **TN** **WA**	NV TN WA	NV TN WA
			GU KY	GU KY	**GU** **KY**	GU KY	**GU** **KY**	GU KY	GU KY
			MS WI	MS WI	**MS** **WI**	MS WI	**MS** **WI**	MS WI	MS WI
		AL AZ GA	AL AZ GA	AL AZ GA	**AL** **AZ** **GA**	AL AZ GA	**AL** **AZ** **GA**	AL AZ GA	AL AZ GA
		ND OH SC SD	ND OH SC SD	ND OH SC SD	**ND** **OH** **SC** **SD**	ND OH SC SD	**ND** **OH** **SC** **SD**	ND OH SC SD	ND OH SC SD
		UT WV	UT WV	UT WV	**UT** **WV**	UT WV	**UT** **WV**	UT WV	UT WV
	IL MD	IL MD	**IL** **MD**	IL MD	**IL** **MD**	IL MD	**IL** **MD**	IL MD	IL MD
	NE NJ PR	NE NJ PR	**NE** **NJ** **PR**	NE NJ PR	**NE** **NJ** **PR**	NE NJ PR	**NE** **NJ** **PR**	NE NJ PR	NE NJ PR
AR CT DE	AR CT DE	AR CT DE	**AR** **CT** **DE**	AR CT DE	**AR** **CT** **DE**	AR CT DE	**AR** **CT** **DE**	AR CT DE	AR CT DE
LA MA ME NH NM	LA MA ME NH NM	LA MA ME NH NM	**LA** **MA** **ME** **NH** **NM**	LA MA ME NH NM	**LA** **MA** **ME** **NH** **NM**	LA MA ME NH NM	**LA** **MA** **ME** **NH** **NM**	LA MA ME NH NM	LA MA ME NH NM
NY OK RI TX VT	NY OK RI TX VT	NY OK RI TX VT	**NY** **OK** **RI** **TX** **VT**	NY OK RI TX VT	**NY** **OK** **RI** **TX** **VT**	NY OK RI TX VT	**NY** **OK** **RI** **TX** **VT**	NY OK RI TX VT	NY OK RI TX VT
'90	'91	'92	**'93**	'94	**'95**	'96	**'97**	'98	'99

*PA - program approved in 1999 - voluntarily reported in 1995 & 1997
*IA - unapproved/expected 1999 - no information reported
*AK - unapproved/no expected date - no information reported
*VA - unapproved/no expected date - information reported in 1995 & 1997
1991-1993 - <u>18 States</u> reported
1993-1995 - <u>31 States</u> reported
1995-1997 - <u>42 States</u> reported (42 plus PA - approved in 1999).

Two years after a State's program has been approved by EPA, the State is required to begin reporting its progress in implementing the program on a biennial basis. So far, there has been a total of three biennial reporting periods (1991-1993, 1993-1995, 1995-1997). In Table 2, approved states for each year are listed in normal type, and States that have submitted Biennial Reports are listed in bold type and are underlined. For instance, as shown in Table 2, 46 States and territories had approved WHP programs in 1997, but only 42 of those States submitted Biennial Reports in that year. In addition, Pennsylvania and Virginia reported their information through 1997, however, these two States did not have approved programs at that time. Reports for the 1997-1999 period will be due at the end of 1999, and therefore no States have yet submitted their data for this next period. The focus of this summary report is the data submitted by states for the 1995-1997 reporting period.

As shown in Figure 1 (and in Appendix A), States made significant progress in implementing their WHP programs between 1993 and 1997. With respect to the five steps of the WHP Program, by the end of FY97 more than 6,000 communities nationwide had started implementing their local WHP program (Step 1), with over 7,000 Community Water Systems (CWSs) completing WHP delineation. 5,000 of those systems had completed their contaminant source inventories with 3000 systems having completed their source management. By the end of the same period, almost 4,000 systems had contingency plans in place. In Figure 1, and in the State-specific charts in Appendix B, systems having completed more than one step are counted in each of those steps, so that one system is included in the count for Steps 1, 2, and 3 if all three steps have been completed by that system..

NATIONAL
WHP Implementation
Summary of Biennial Data for CWSs

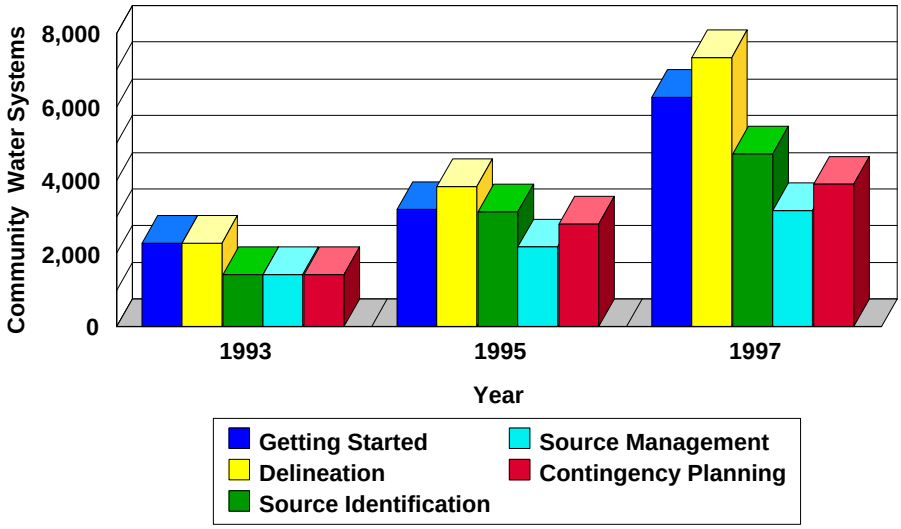


Figure 1

Please note that Figure 1 depicts data for Community Water Systems. Also, Appendix A contains a national data summary and graphic depiction of Noncommunity Water Systems (NCWSs) as well as the summary and graphic for CWSs. States voluntarily reported data for NCWSs in accordance with the 1995-1997 WHP Guidance and also may opt to voluntarily report the implementation of Step 1 which explains why a lesser number of systems have reported the implementation of Step 1 in contrast to reporting Step 2.

In Figure 1, data compiled from the individual state WHP reports show Step 2 (Delineation) had the highest level of implementation. This is not surprising, since many delineations are performed by the State. Delineation provides the necessary information for a community to proceed to the next step -- Source Identification. The contaminant source inventory is also critical, for it gives a local team a sense of whether these potential sources of contamination are *already* being managed and whether there are some potential sources whose management is unknown.

The fourth step (Source Management) has the lowest implementation rate among the five steps. States describe in their biennial reports how “management” is an ongoing, dynamic process rather than an end to itself and is almost always handled at the local level. Management options can range from secondary containment around an above-ground fuel storage tank, to enacting

new zoning ordinances, to educating third graders. It is difficult to determine when a system's potential contaminant sources have finally become "managed," and individual States define the completion of this step in different ways. Several States require Step 5 Contingency Planning for all systems, enabling the systems to respond to emergencies and to protect new sources of drinking water.

III. State Wellhead Protection Program Reporting Issues

As noted in Figure 1 and Table 2, States have been making steady progress toward implementing their Wellhead Protection programs. Appendix B contains the state-specific data summaries and graphics showing the number of public water systems and the number of community water systems at each step for all three of the reporting cycles (1991-1997).

Program reporting has changed over the reporting cycles because of the lack of consistent guidance for tracking measures. Guidance and, therefore, reporting of the WHP data has resulted in some incompatibility for each of these three reporting cycles (1991-1993, 1993-1995, 1995-1997):

- Under the 1991-1993 reporting period, the States were required to report progress for each wellhead protection area delineated rather than for each public water system. In many cases, one public water system can have numerous wells, and as such may have numerous wellhead protection areas. For this 1995-1997 report, EPA regional offices worked with their State partners to convert the earlier 1991-1993 data to reflect progress by CWS to the extent possible.

- During the 1993-1995 reporting period, the steps used to track WHP progress were changed. For the current summary report, EPA again worked with the States to translate that earlier data into the steps used to track the 1995-1997 progress. Also, because of some inconsistencies in data from State to State, there inherently will be some errors in the translation of this data.

- The reporting criteria were again revised for the 1995-1997 reporting period, because the report focuses primarily on progress made with community water systems and allows States the option of reporting non-community systems status. For those States with dramatic drops in implementation progress, much of that change can be attributed to the fact that some states chose not to report progress with noncommunity water systems for this period.

<u>Summary of Narrative Comments from the States</u>

In addition to providing quantitative data on the progress of their WHP Programs at the local level, States also have the opportunity to provide a narrative report describing their efforts and concerns.

A few of these common themes from the narrative reports are highlighted below:

- Source Management approaches should be site-specific. This is due mainly to the need for stakeholder support and implementability of management options. Experience shows that management is an ongoing, iterative process. For example, many WHP planning teams begin to recognize and implement management controls before the management plan is completely written. This protects the resource, and also helps to test whether proposed management controls are workable before the plan is completed.

- Most States have made considerable progress in developing geographic information systems to support wellhead protection planning, implementation, and tracking. However, most States identify continued development of data sharing techniques, data base development, and obtaining accurate locational information as future priorities. As a reminder, each State has a State Geological Survey which is capable of providing scientific information related to the protection of ground water and surface water.

- Several States identify continued Federal coordination and assistance as an ongoing need. In particular, ongoing assistance is needed from the United States Geological Survey as well as coordination with groups such as the Natural Resources Conservation Service. There is also a continuing need for education about the importance of wellhead protection for those Federal agencies that operate public water supplies or those agencies that have stewardship responsibilities for lands that lie within wellhead protection areas.

- Forty-eight States have formed a partnership with the National Rural Water Association through its State affiliates to assist in implementing the State's Wellhead Protection program for PWSs which serve a population of less than 10,000. These partnerships have proven to be a valuable resource for the States to use while State resources are focused on systems that serve a larger population.

- A number of States found that the use of volunteers helps to implement WHP programs at the local level. EPA funded a Source Water Mentor Pilot Project in partnership with the Environmental Alliance for Senior Involvement (EASI) and State chapters of the Retired and Senior Volunteer Program (RSVP). To date, ten States piloted the use of senior volunteers to help promote the WHP program and to initiate management efforts to protect a local water supply. In those States in which the project was successful, volunteers were instrumental in conducting source inventories, developing community-based protection programs, educating the public about their local drinking water supply, and developing documents or brochures that guide communities in developing their own WHP program.

While the Wellhead Protection program has proven to be effective in providing an additional level of protection to ground water sources of public drinking water supplies, the program also serves as a model for other countries with similar ground water protection concerns. The Republic of Mexico implemented a Wellhead Protection program for Ciudad Juarez, Chihuahua, that mirrors the program developed by El Paso, Texas. This level of cooperation between two

"sister cities" not only promotes coordination between two cities, but also provides an added level of protection to a resource that is shared by both countries.

- The States recognize the statutory requirement for the Biennial Report; however, they would like EPA to explore opportunities to allow biennial reporting in an electronic format. One area which is currently being pursued is the integration of the WHP program biennial reporting with the States' current electronic reporting under the EPA's Safe Drinking Water Information System (SDWIS).

IV. Recommendations/Issues for Future Reporting

The SDWA Amendments of 1996 expanded the scope of drinking water protection programs to include surface water and ground water sources in the Source Water Assessment Program. Under the new Amendments, Section 1428 for WHP remained essentially unchanged, therefore continuing the WHP requirements for management measures, contingency plans and biennial reporting of State Wellhead Protection program progress.

The new Section 1453 requires States to conduct a source water assessment of *all* public water supply systems within their jurisdiction and to make this information available to the public. This requirement applies to all surface water and ground water systems, including those that are implementing the WHP program. Table 3 summarizes a comparison between the critical elements of Section 1428 - the Wellhead Protection Program and Section 1453 - the Source Water Assessment Program. As shown in Table 3, two new steps were added in the SWA Program that were not present in the WHP program - determining the water system's susceptibility to identified potential sources of contaminants, and releasing the results to the public. The contaminant source management and contingency planning aspects of WHP are not required for surface water sources under the SWA Program, but are strongly recommended as an integral part of a drinking water source protection program.

Table 3. Comparison of Wellhead Protection and Source Water Assessment Program Critical Steps

Critical Steps required or established under Section 1428 of the SDWA: Wellhead Protection Program	*Critical Steps required under Section 1453 of the SDWA: Source Water Assessment Program*
Define Roles/Establish Local Teams	
Delineation of Wellhead Protection Areas	Delineation of Source Water Protection Areas (For systems using ground water, this step is essentially the same as under WHP)
Conduct an inventory of potential contaminant sources within the delineated area	Conduct an inventory of potential contaminant sources within the delineated area
	Susceptibility Determinations (defined in 1997 final SWAP/SWP Guidance)
	Public Release of Assessment Results (defined in 1997 final SWAP/SWP Guidance)
Provide management controls for those potential sources of contamination (defined in final 1987 WHP Guidance)	Management measures are not required, but are expected as a result of the assessments
Develop contingency plans and apply WHP program elements to sites of future water supply wells.	Contingency plans are not required, but are expected as part of a source water protection program

The 1996 Amendments of the SDWA provided States with the flexibility to design "source water protection" programs for the benefit of public water supply systems, including the support for monitoring flexibility. The Amendments also provided a source of funding for drinking water protection activities such as Wellhead Protection programs and land acquisition through the new Drinking Water State Revolving Loan Fund.

Additionally, the 1996 SDWA Amendments facilitate integration of the information gathered under the State's WHP program for ground water sources of public drinking water supplies, with the Source Water Assessment Program requirements. In 1997, EPA published guidance to the states for the development of their SWA programs. In order for EPA to approve a State's SWA program, the guidance specifies that the State needs to describe how it will periodically report progress on their efforts. The guidance strongly recommends an expansion and use of the WHP Biennial Report for this purpose; recent SWA program submittals from the States appear to endorse this approach.

For the next reporting period (1997 - 1999), the current 5-step framework will continue to be used. However, beginning in year 2000, EPA will ask States to use a new 6-step framework that contains the following steps: delineation, contaminant source inventory, susceptibility determination, public availability of results, management measures, and contingency planning. The basic elements of WHP will remain, but will include the addition of new susceptibility determination and public release steps. Guidance reflecting these changes for the FY1999 - FY2001 Biennial Reporting period will be published early in 2000.

Future Reporting for the Tracking of GPRA Goals:

The Biennial Report is one of the mechanisms the States have available for the future reporting of SWAs, and eventually SWPs. EPA's requirement to implement and track progress of WHP and these Source Water Programs also creates the opportunity for EPA to track progress for the Agency's Government Performance and Results Act (GPRA) Goals.

The U.S. Congress enacted the Government Performance and Results Act in 1993 for the purpose of linking EPA's resources with measuring environmental results. As a result of this Act, a Strategic Plan was finalized by the Agency in September, 1997. This plan describes the EPA's mission and ten broad goals that will serve as the framework for the Agency's planning and budgeting decisions over the next several years, and for measuring results. Progress toward meeting the goals and objectives will be tracked for an annual performance report to Congress. The Wellhead Protection Program as well as the Source Water Assessment Program fall under some of the clean and safe water goals which will be met through the implementation of the WHP and SWA/SWP programs.

One of the most significant goals for Source Water Protection is stated below:

EPA's Source Water Protection Goal

P EPA has set a goal that by the year 2005, 50% of the population served by community water systems will receive their water from systems with source water protection programs in place.

EPA plans to use the information reported by States through the Biennial Reports, EPA's Safe Drinking Water Information System, and possibly other mechanisms to track progress on meeting this source water protection goal. Existing drinking water protection accomplishments achieved by communities through their WHP programs will create a strong basis for meeting this goal.

Another GPRA goal, similar to the first, provides a performance measure for ensuring clean and safe drinking water for the population of Tribal communities. This is stated below:

EPA's Source Water Protection Goal for Tribal Communities

P EPA has set a goal that by the year 2005, 40% of the population served by tribal community water systems will receive their water from systems with source water assessments in place and where needed, source water protection programs in place.

Recommendations for Tracking Tribal Wellhead Protection Program Progress

While Section 1428 only requires that States develop WHP programs, a number of Tribes across the country have found the value of integrating the WHP program into their larger environmental planning efforts on Tribal Lands. Many Tribes have identified elements of the WHP program for funding in their Tribal/EPA Agreements (TEAs) which foster agreement on short term funding needs for the Tribes.

Tracking the Tribal implementation of WHP has begun and the 1999 - 2001 WHP Biennial Report will show the data and list the National Tribes with wellhead protection in progress. Initial indications show that about 10% of the Tribes have started WHP, even though the reporting of their WHP implementation is not required by SDWA. So far, the methods of tracking and reporting of Tribal implementation may vary from EPA Region to Region.

Since the EPA Regions have already initiated both technical and resource assistance to the Tribes for WHP, the tracking and reporting of their progress should fall under the umbrella of the Biennial Report. The Report would then, starting with the next reporting period, publish WHP data implemented by Tribes. This would not only provide recognition of Tribal efforts, but would track implementation for the Tribal GPRA goal.

In the coming years, EPA will continue to work with Tribes on the implementation of the WHP Program and the Source Water Assessment and Protection Programs on Tribal lands.

V. Summary

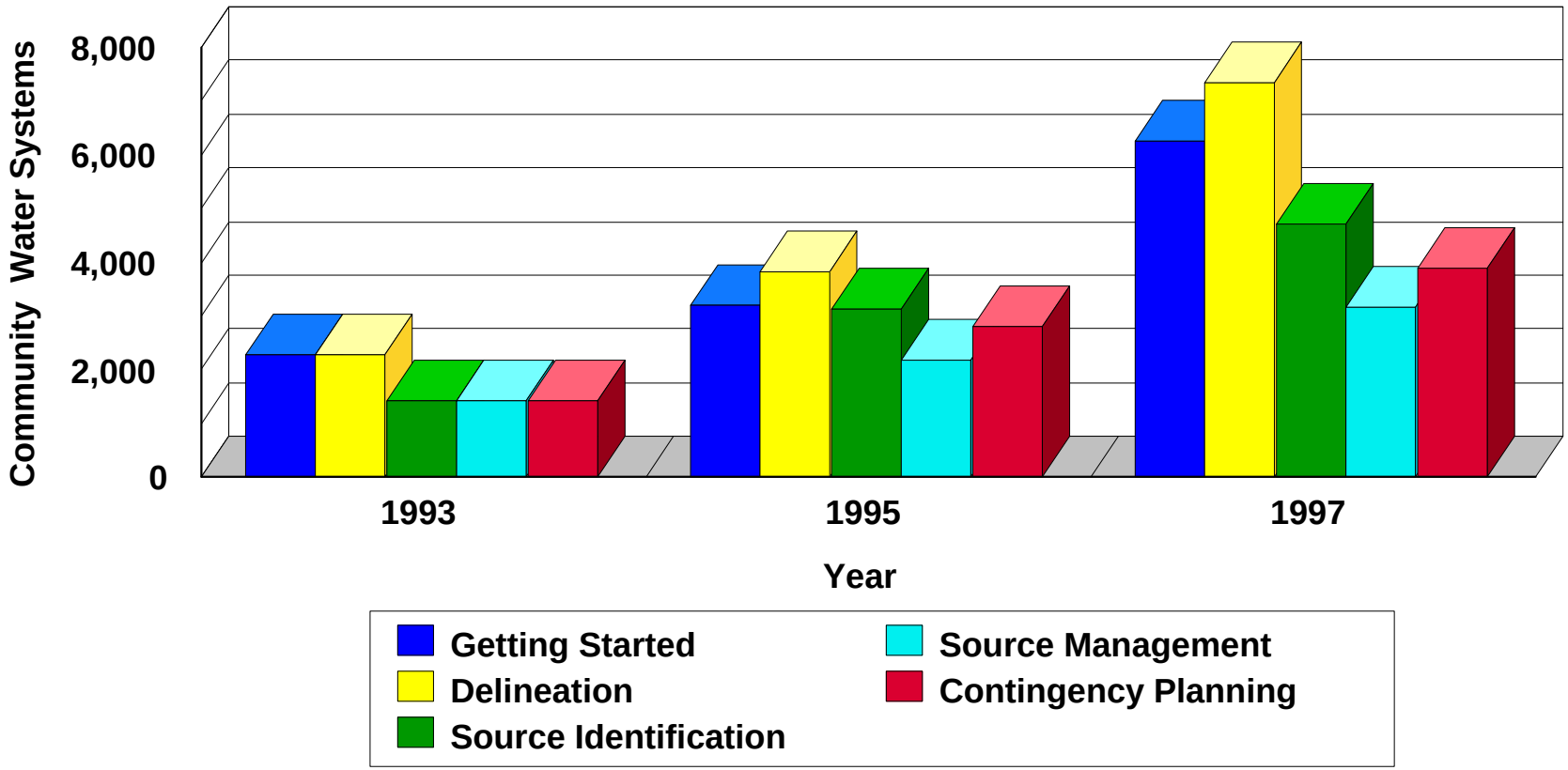
In summary, States have made significant progress in establishing their WHP Programs, and local implementation of the Program is well underway in a number of States. However, much work remains to be done, including creation of a more consistent framework for reporting from one cycle to another. A key challenge will be the transfer to a new reporting framework to incorporate the SWA Program.

Another challenge will be tracking progress across the country in a consistent manner to show that "prevention" has been achieved. Historically, the guideline used so far in the WHP Program has been that prevention is "in place" once a State has determined that the intent of SDWA has been achieved for preventing contamination of source waters for any particular PWS. As the program moves to measuring progress in meeting the GPRA goal of community "source water protection programs in place" and reporting this information to the U.S. Congress, there may need to be a greater degree of consistency in the definition of this concept used by States and EPA.

EPA is looking forward to working with the States to improve the tracking progress for the Wellhead Protection and Source Water Assessment/Source Water Protection Programs as well as helping the States to continue their positive progress in the implementation of these programs.

APPENDIX A
National Public Water Supply Progress
(Community and Non-Community PWSs)

NATIONAL
WHP Implementation
Summary of Biennial Data for CWSs



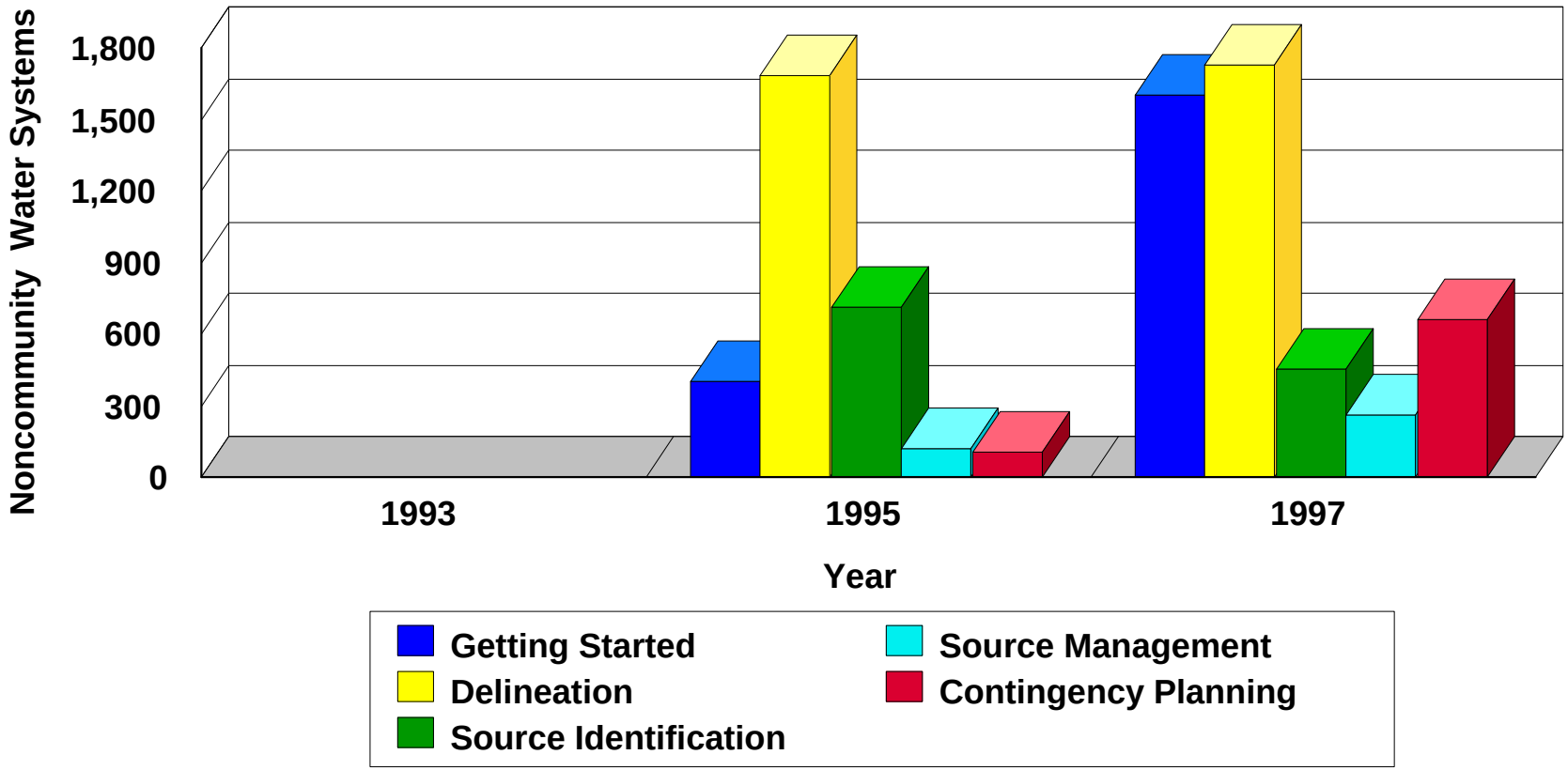
Wellhead Protection Implementation for Community Water Systems
Summary of Biennial Reporting Data

	Reporting Period 1991-1993			Reporting Period 1993-1995			Reporting Period 1995-1997		
	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs
Total number of ground water dependent PWS systems	3,032	6,002	25,123	23,154	52,988	90,712	33,291	88,408	125,881
Total number of systems that have completed:									
Step 1: Getting Started	2,298	N/A	2,298	3,237	N/A	3,213	6,267	N/A	6,267
Step 2: Delineation	2,296	N/A	2,296	3,843	N/A	3,843	7,364	N/A	7,364
Step 3: Identify Sources	1,423	N/A	1,423	3,150	N/A	3,150	4,724	N/A	4,724
Step 4: Manage Sources	1,448	N/A	1,448	2,200	N/A	2,200	3,174	N/A	3,174
Step 5: Contingency Planning	1,441	N/A	1,441	2,811	N/A	2,811	3,897	N/A	3,897
Comments/Observations/Problems:									

* Data not available/or optional reporting

N/A - Not applicable (Program not approved during reporting period)

NATIONAL
WHP Implementation
Summary of Biennial Data for NCWSs



Wellhead Protection Implementation for Noncommunity Water Systems
Summary of Biennial Reporting Data

	Reporting Period 1991-1993			Reporting Period 1993-1995			Reporting Period 1995-1997		
	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs
Total number of ground water dependent PWS systems	3,032	6,002	25,123	23,154	52,988	90,712	33,291	88,408	125,881
Total number of systems that have completed:									
Step 1: Getting Started	N/A	*	*	N/A	407	407	N/A	1,607	1,607
Step 2: Delineation	N/A	*	*	N/A	1,684	1,684	N/A	1,731	1,731
Step 3: Identify Sources	N/A	*	*	N/A	716	716	N/A	453	453
Step 4: Manage Sources	N/A	*	*	N/A	123	123	N/A	266	266
Step 5: Contingency Planning	N/A	*	*	N/A	104	104	N/A	666	666
Comments/Observations/Problems:									

* Data not available/or optional reporting

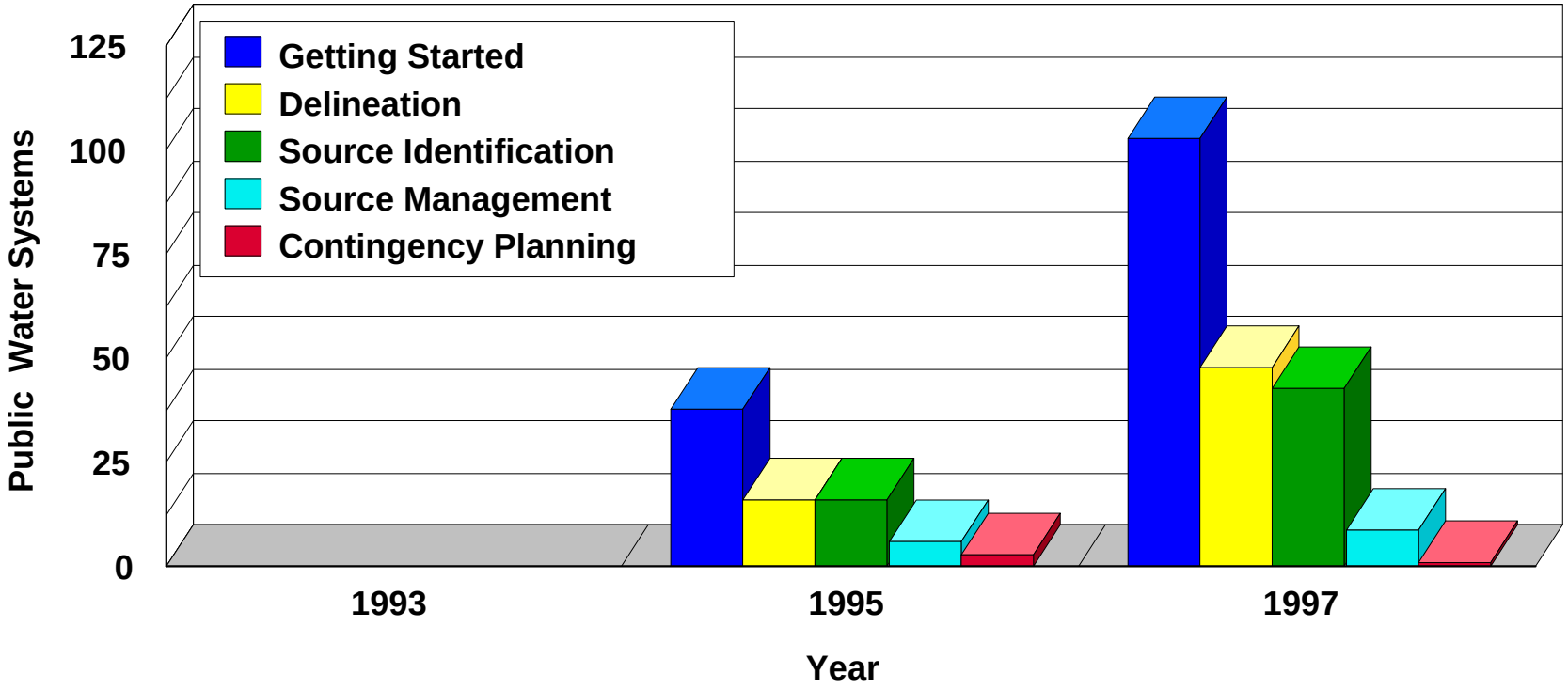
N/A - Not applicable (Program not approved during reporting period)

APPENDIX B
State Summaries & Graphics
1991 - 1997

A L A B A M A

W H P I m p l e m e n t a t i o n

S u m m a r y o f B i e n n i a l D a t a



State Program Approved March 31, 1992

Wellhead Protection Implementation for Alabama
Summary of Biennial Reporting Data

	Reporting Period 1991-1993			Reporting Period 1993-1995			Reporting Period 1995-1997		
	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs
Total number of ground water dependent PWS systems	N/A	N/A	N/A	420	218	638	398	171	569
Total number of systems that have completed:									
Step 1: Getting Started	N/A	N/A	N/A	38	*	38	103	*	103
Step 2: Delineation	N/A	N/A	N/A	16	*	16	48	*	48
Step 3: Identify Sources	N/A	N/A	N/A	16	*	16	43	*	43
Step 4: Manage Sources	N/A	N/A	N/A	6	*	6	9	*	9
Step 5: Contingency Planning	N/A	N/A	N/A	3	*	3	1	*	1
Comments/Observations/Problems: State WHP Program approved 3/31/92									

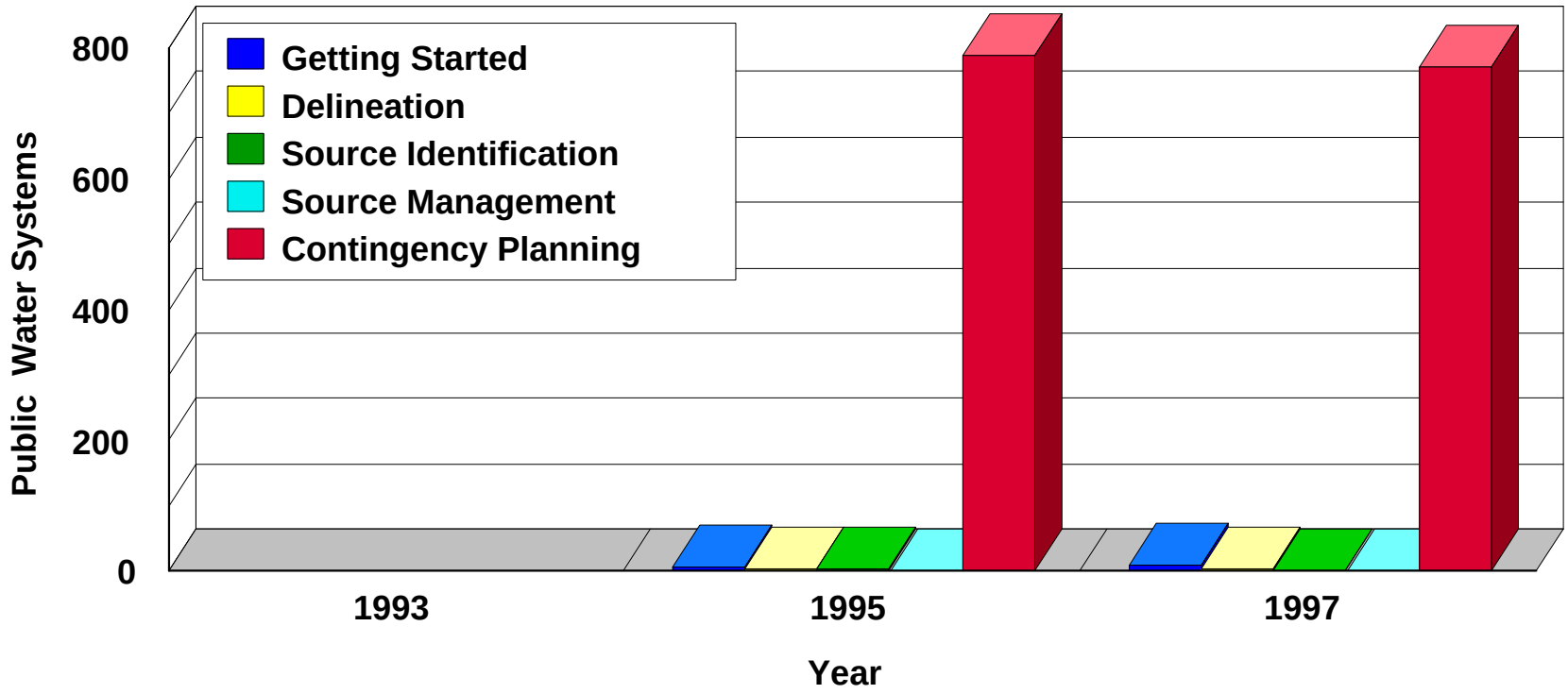
* Data not available/or optional reporting

N/A - Not applicable (Program not approved during reporting period)

ARIZONA

WHP Implementation

Summary of Biennial Data



State Program Approved March 16, 1992

Wellhead Protection Implementation for Arizona
Summary of Biennial Reporting Data

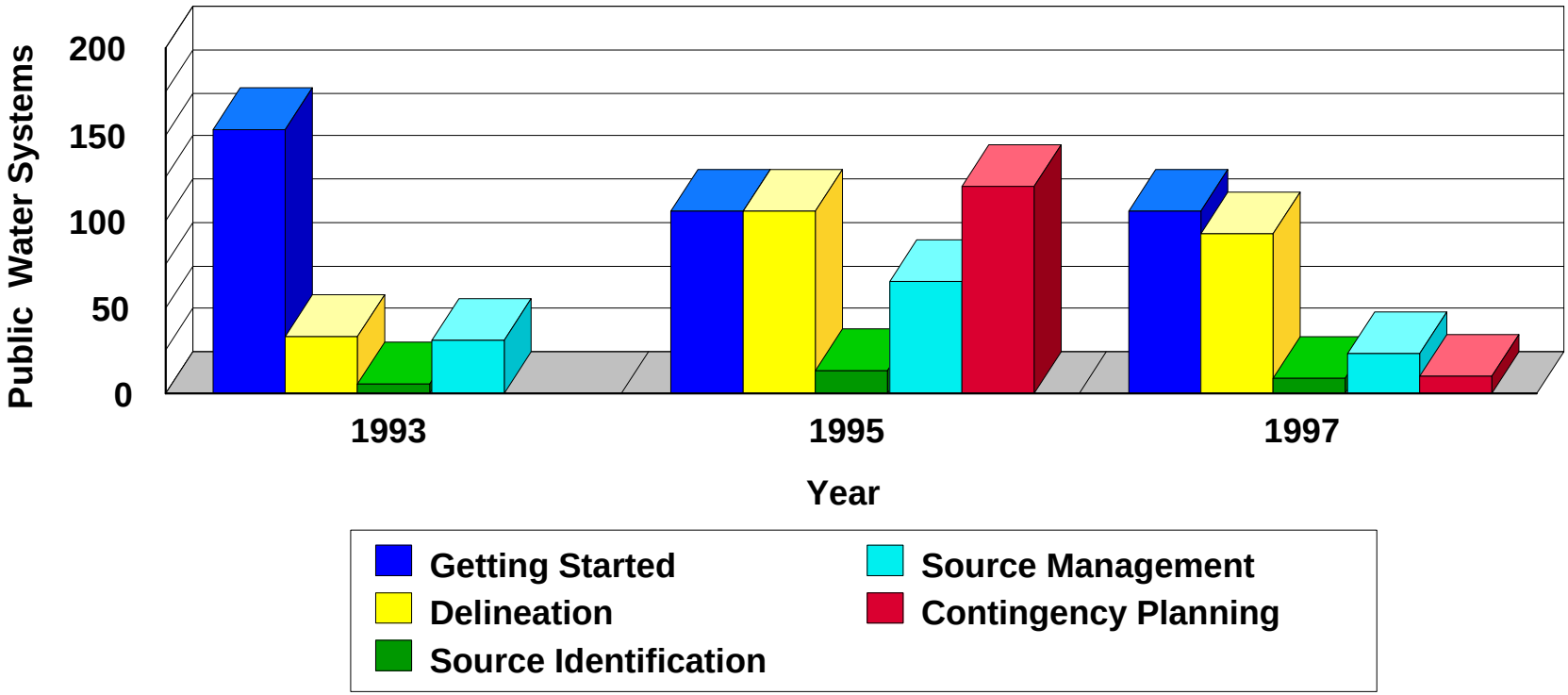
	Reporting Period 1991-1993			Reporting Period 1993-1995			Reporting Period 1995-1997		
	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs
Total number of ground water dependent PWS systems	N/A	N/A	N/A	*	*	1537	772	806	1578
Total number of systems that have completed:									
Step 1: Getting Started	N/A	N/A	N/A	8	*	8	9	*	9
Step 2: Delineation	N/A	N/A	N/A	3	*	3	5	*	5
Step 3: Identify Sources	N/A	N/A	N/A	3	*	3	1	*	1
Step 4: Manage Sources	N/A	N/A	N/A	0	*	0	0	*	0
Step 5: Contingency Planning	N/A	N/A	N/A	789	*	789	772	*	772
Comments/Observations/Problems: Contingency plans are required by state law for CWSs.									

* Data not available/or optional reporting
N/A - Not applicable (Program not approved during reporting period)

ARKANSAS

WHP Implementation

Summary of Biennial Data



State Program Approved September 27, 1990

Wellhead Protection Implementation for Arkansas
Summary of Biennial Reporting Data

	Reporting Period 1991-1993			Reporting Period 1993-1995			Reporting Period 1995-1997		
	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs
Total number of ground water dependent PWS systems	*	*	*	402	568	970	484	490	974
Total number of systems that have completed:									
Step 1: Getting Started	*	*	153	*	*	106	*	*	106
Step 2: Delineation	*	*	33	*	*	106	*	*	93
Step 3: Identify Sources	*	*	6	*	*	14	*	*	9
Step 4: Manage Sources	*	*	31	*	*	65	*	*	24
Step 5: Contingency Planning	*	*	*	*	*	120	*	*	10
Comments/Observations/Problems:									

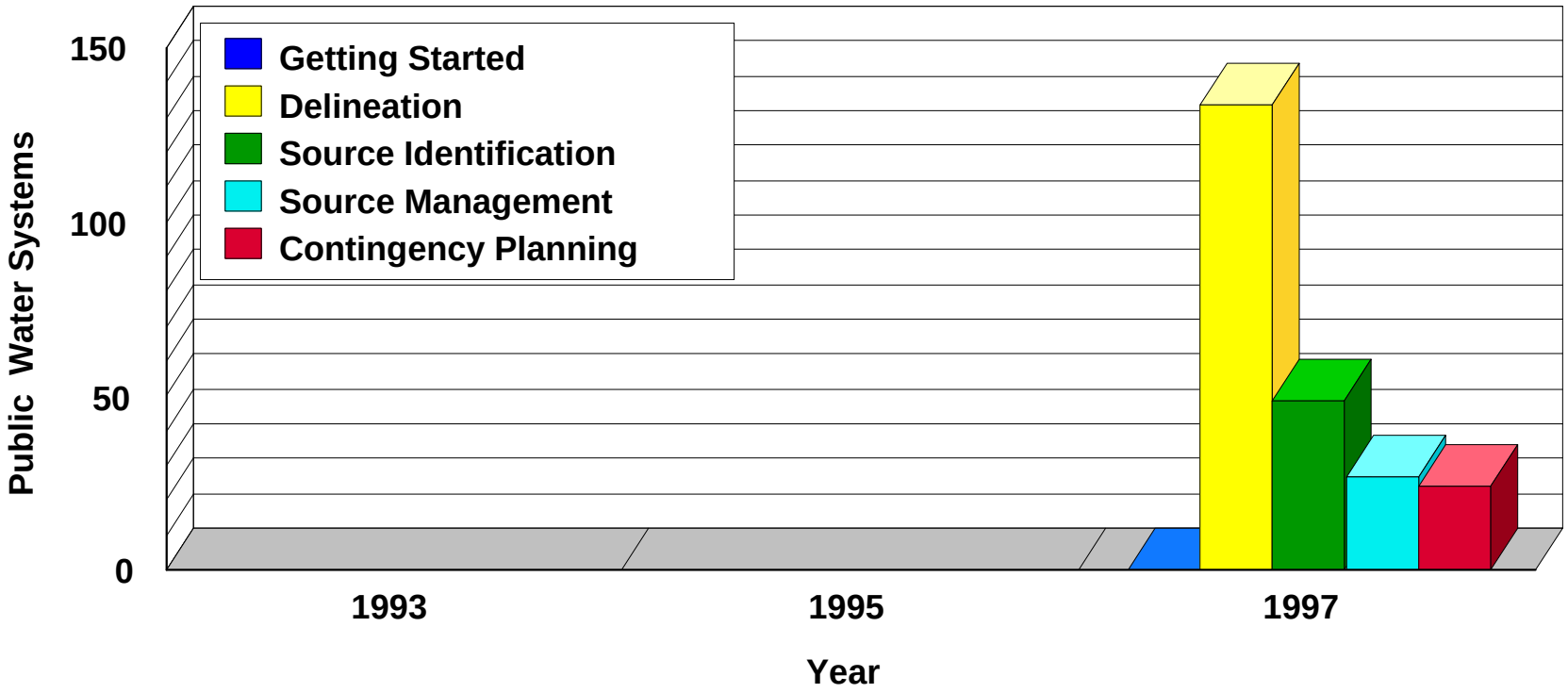
* Data not available/or optional reporting

N/A - Not applicable (Program not approved during reporting period)

COLORADO

WHP Implementation

Summary of Biennial Data



State Program Approved September 30, 1994

Wellhead Protection Implementation for Colorado
Summary of Biennial Reporting Data

	Reporting Period 1991-1993			Reporting Period 1993-1995			Reporting Period 1995-1997		
	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs
Total number of ground water dependent PWS systems	N/A	N/A	N/A	N/A	N/A	N/A	532	*	1679
Total number of systems that have completed:									
Step 1: Getting Started	N/A	N/A	N/A	N/A	N/A	N/A	*	*	0
Step 2: Delineation	N/A	N/A	N/A	N/A	N/A	N/A	*	*	134
Step 3: Identify Sources	N/A	N/A	N/A	N/A	N/A	N/A	*	*	49
Step 4: Manage Sources	N/A	N/A	N/A	N/A	N/A	N/A	*	*	27
Step 5: Contingency Planning	N/A	N/A	N/A	N/A	N/A	N/A	*	*	24
Comments/Observations/Problems: Colorado's program was approved September 30, 1994.									

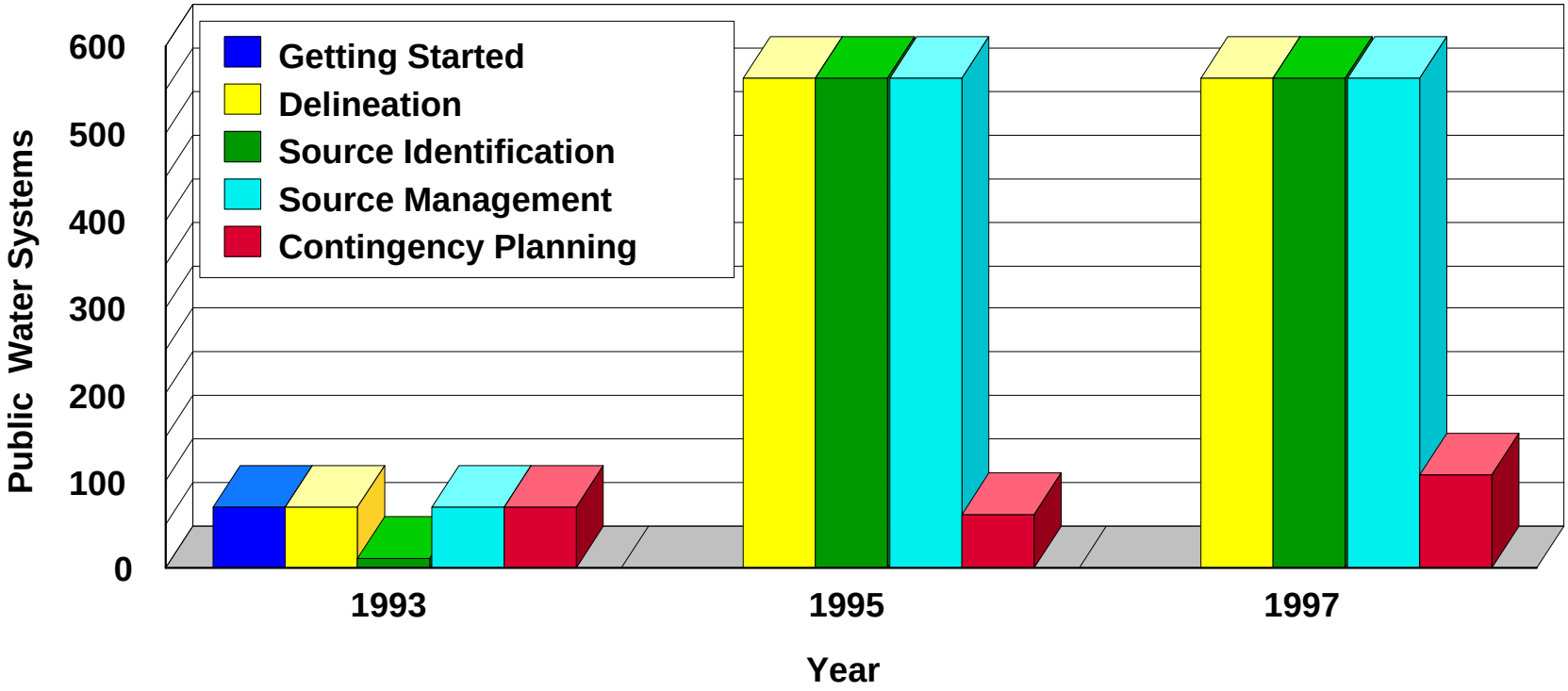
* Data not available/or optional reporting

N/A - Not applicable (Program not approved during reporting period)

CONNECTICUT

WHP Implementation

Summary of Biennial Data



State Program Approved March 17, 1990

Wellhead Protection Implementation for Connecticut
Summary of Biennial Reporting Data

	Reporting Period 1991-1993			Reporting Period 1993-1995			Reporting Period 1995-1997		
	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs
Total number of ground water dependent PWS systems	586	*	*	563	3849	4411	564	4647	5211
Total number of systems that have completed:									
Step 1: Getting Started	71	*	71	*	*	*	*	*	*
Step 2: Delineation	71	*	71	563	*	563	564	*	564
Step 3: Identify Sources	12	*	12	563	*	563	564	*	564
Step 4: Manage Sources	70	*	70	563	*	563	564	*	564
Step 5: Contingency Planning	71	*	71	63	*	63	109	*	109

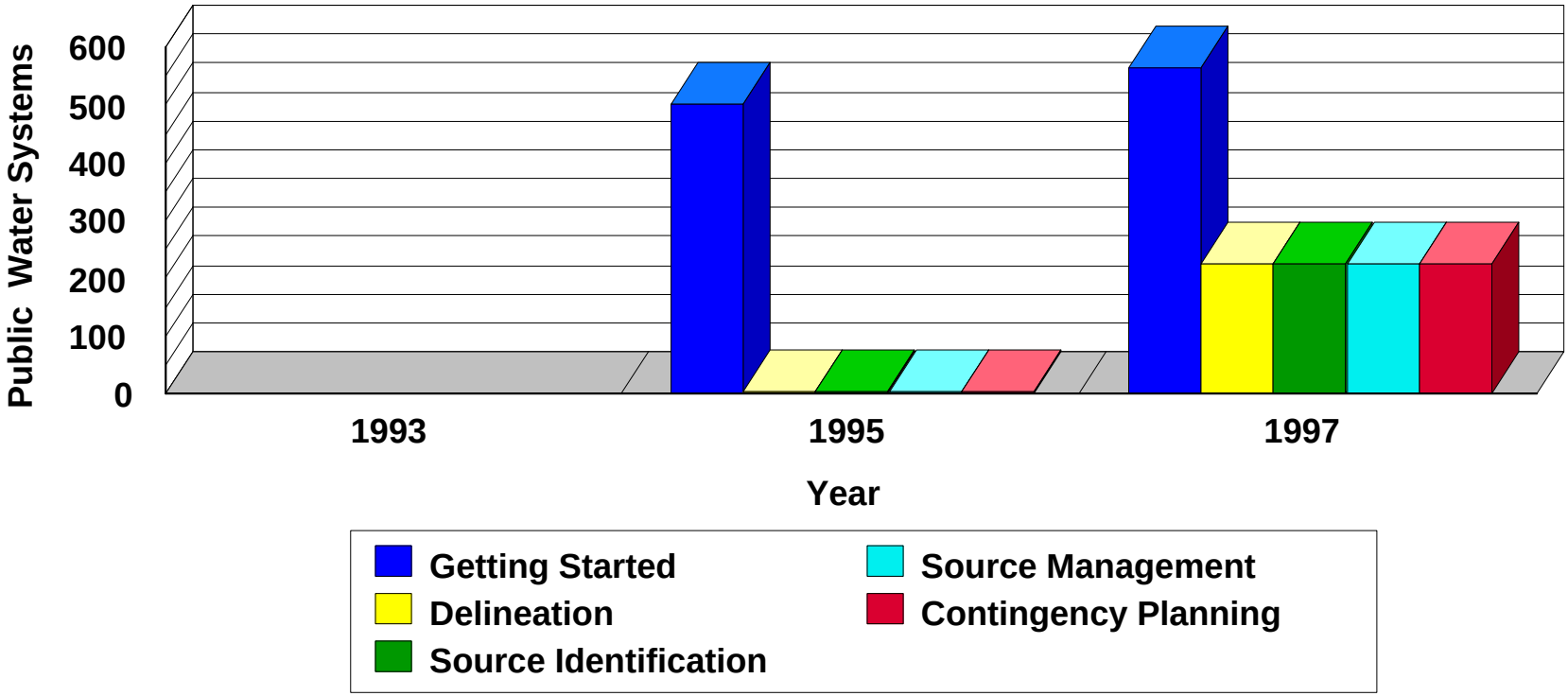
Comments/Observations/Problems: In 1993, the information was reported by wellhead protection areas (Step 1 = 141, Step 2 = 141, Step 3 = 24, Step 4 = 139, and Step 5 = 141). The 141 WHPAs represented 71 systems. The number of systems listed for Step 3 and 4 are estimates based on the ration of systems to WHPAs. Although source inventories have not been completed for all WHPAs, communities taking limited interim management measures under existing authorities based on preliminary information, even though towns do not have regulatory authority under the Aquifer Protection Area Program. In 1995 and 1997, Step 1 was not tracked. The reason there are numbers for 1993 is based on the statement that all the WHPAs that were delineated had active public involvement.

* Data not available/or optional reporting

DELAWARE

WHP Implementation

Summary of Biennial Data



State Program Approved May 10, 1990

Wellhead Protection Implementation for Delaware
Summary of Biennial Reporting Data

	Reporting Period 1991-1993			Reporting Period 1993-1995			Reporting Period 1995-1997		
	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs
Total number of ground water dependent PWS systems	*	*	*	218	344	560	227	338	565
Total number of systems that have completed:									
Step 1: Getting Started	*	*	*	159	344	503	227	(338)	565
Step 2: Delineation	*	*	*	6	0	6	227	*	227
Step 3: Identify Sources	*	*	*	6	0	6	227	*	227
Step 4: Manage Sources	*	*	*	6	0	6	227	*	227
Step 5: Contingency Planning	*	*	*	6	0	6	227	*	227

Comments/Observations/Problems: In 1997, DE did not report the option NCWS system data. The number for getting started in 1997 was not a reported figure, but a carry-over from the previous biennial reporting period with a correction representing the change in number of NCWS systems. One other note of correction, the reported data for steps 1 and 2 in 1997 actually accounted for 228 CWS systems which was greater than the total CWS systems. The difference may be due to a CWS system under WHA is no longer an indivual system or miscounted.

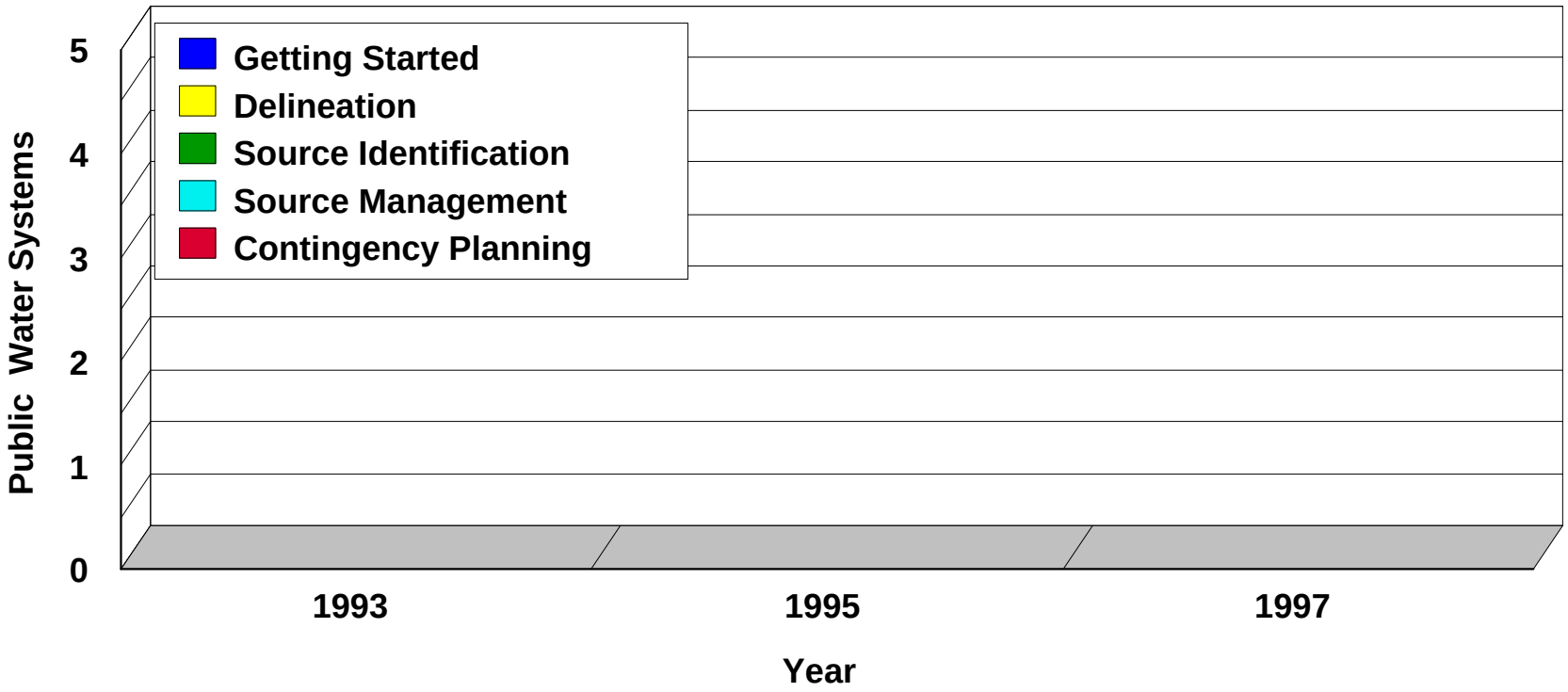
* Data not available/or optional reporting

N/A - Not applicable (Program not approved during reporting period)

FLORIDA

WHP Implementation

Summary of Biennial Data



State Program Approved August 18, 1998

Wellhead Protection Implementation for Florida
Summary of Biennial Reporting Data

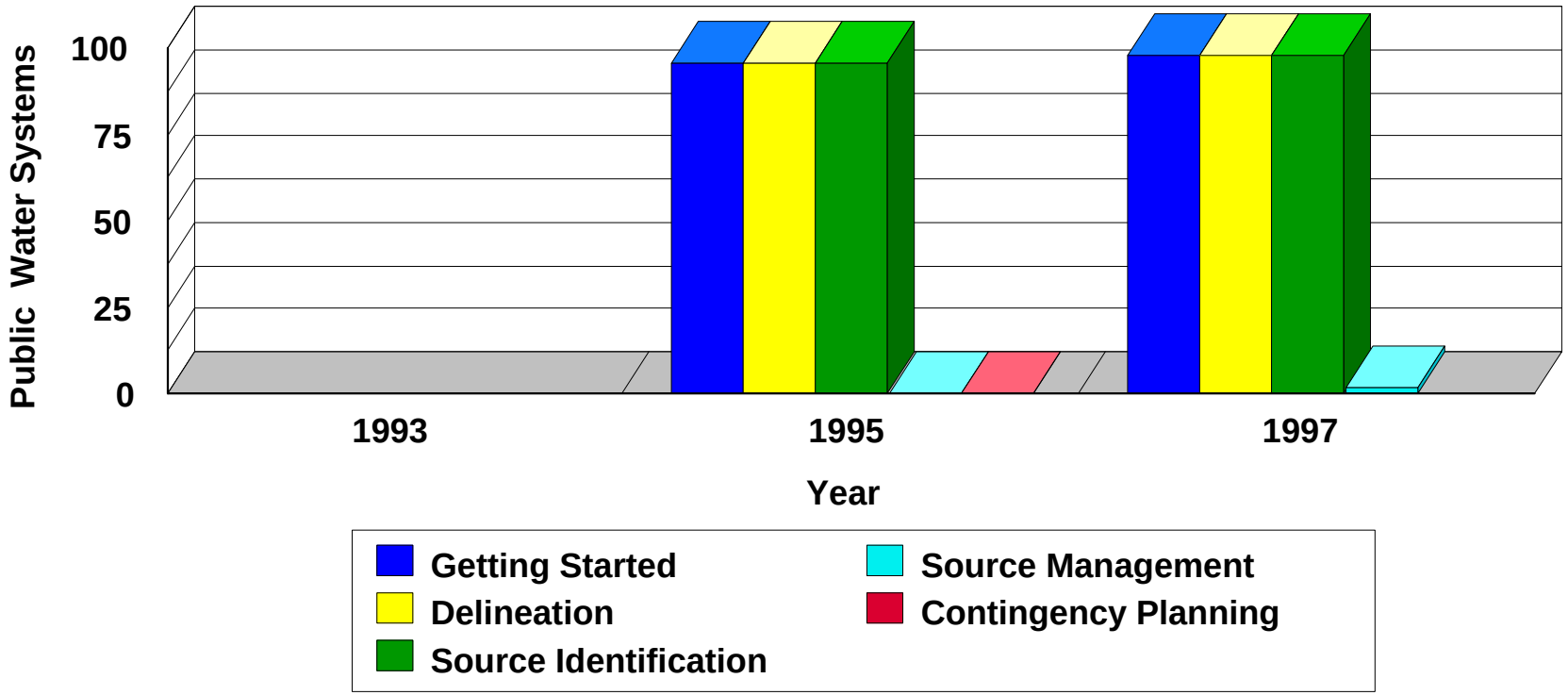
	Reporting Period 1991-1993			Reporting Period 1993-1995			Reporting Period 1995-1997		
	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs
Total number of ground water dependent PWS systems	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total number of systems that have completed:									
Step 1: Getting Started	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Step 2: Delineation	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Step 3: Identify Sources	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Step 4: Manage Sources	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Step 5: Contingency Planning	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Comments/Observations/Problems: State WHP Program approved 8/18/98									

* Data not available/or optional reporting
N/A - Not applicable (Program not approved during reporting period)

GEORGIA

WHP Implementation

Summary of Biennial Data



State Program Approved September 30, 1992

Wellhead Protection Implementation for Georgia
Summary of Biennial Reporting Data

	Reporting Period 1991-1993			Reporting Period 1993-1995			Reporting Period 1995-1997		
	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs
Total number of ground water dependent PWS systems	N/A	N/A	N/A	1446	964	2410	1459	958	2417
Total number of systems that have completed:									
Step 1: Getting Started	N/A	N/A	N/A	96	*	96	98	*	98
Step 2: Delineation	N/A	N/A	N/A	96	*	96	98	*	98
Step 3: Identify Sources	N/A	N/A	N/A	96	*	96	98	*	98
Step 4: Manage Sources	N/A	N/A	N/A	0	*	0	2	*	2
Step 5: Contingency Planning	N/A	N/A	N/A	0	*	0	*	*	*
Comments/Observations/Problems: State WHP Program approved 9/30/92									

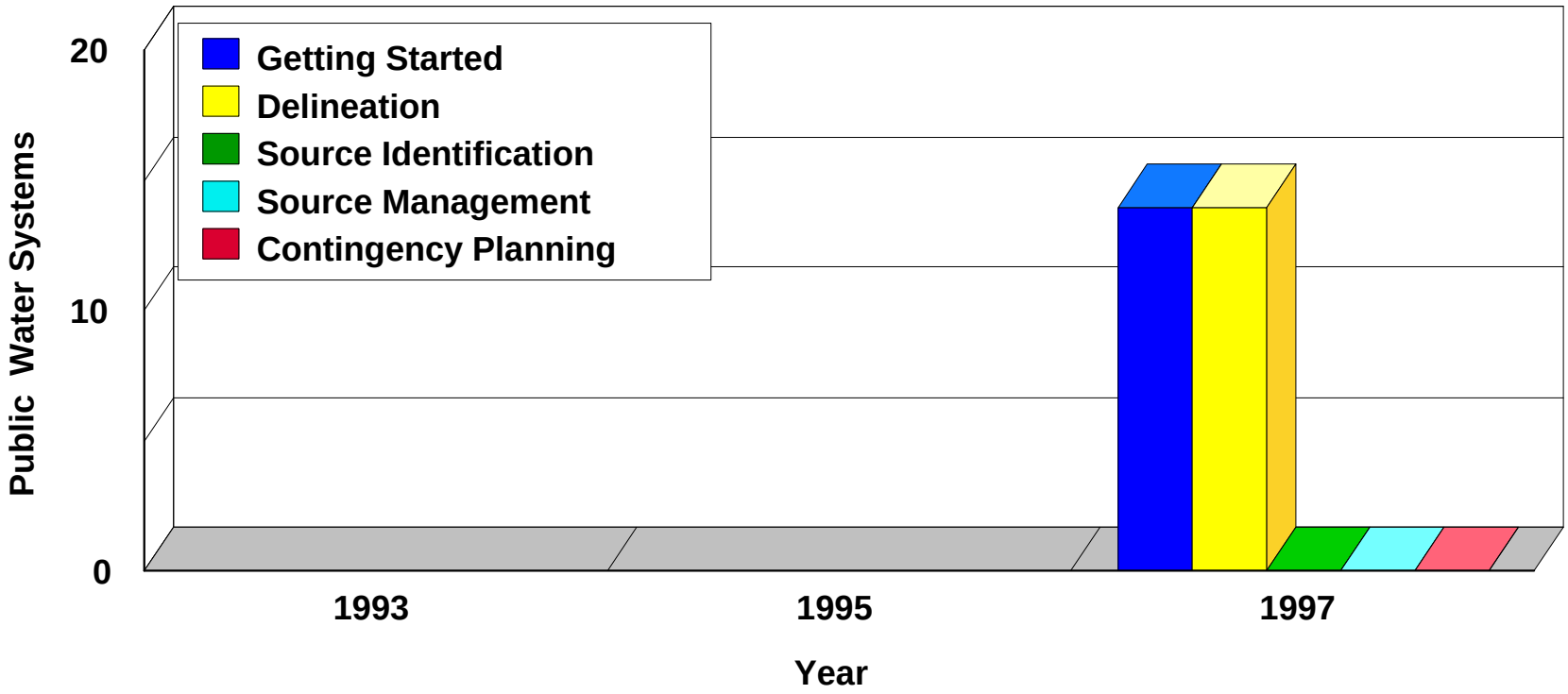
* Data not available/or optional reporting

N/A - Not applicable (Program not approved during reporting period)

HAWAII

WHP Implementation

Summary of Biennial Data



State Program Approved May 26, 1995

Wellhead Protection Implementation for Hawaii
Summary of Biennial Reporting Data

	Reporting Period 1991-1993			Reporting Period 1993-1995			Reporting Period 1995-1997		
	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs
Total number of ground water dependent PWS systems	N/A	N/A	N/A	N/A	N/A	N/A	145	124	269
Total number of systems that have completed:									
Step 1: Getting Started	N/A	N/A	N/A	N/A	N/A	N/A	14	*	14
Step 2: Delineation	N/A	N/A	N/A	N/A	N/A	N/A	14	*	14
Step 3: Identify Sources	N/A	N/A	N/A	N/A	N/A	N/A	0	*	0
Step 4: Manage Sources	N/A	N/A	N/A	N/A	N/A	N/A	0	*	0
Step 5: Contingency Planning	N/A	N/A	N/A	N/A	N/A	N/A	0	*	0
Comments/Observations/Problems:									

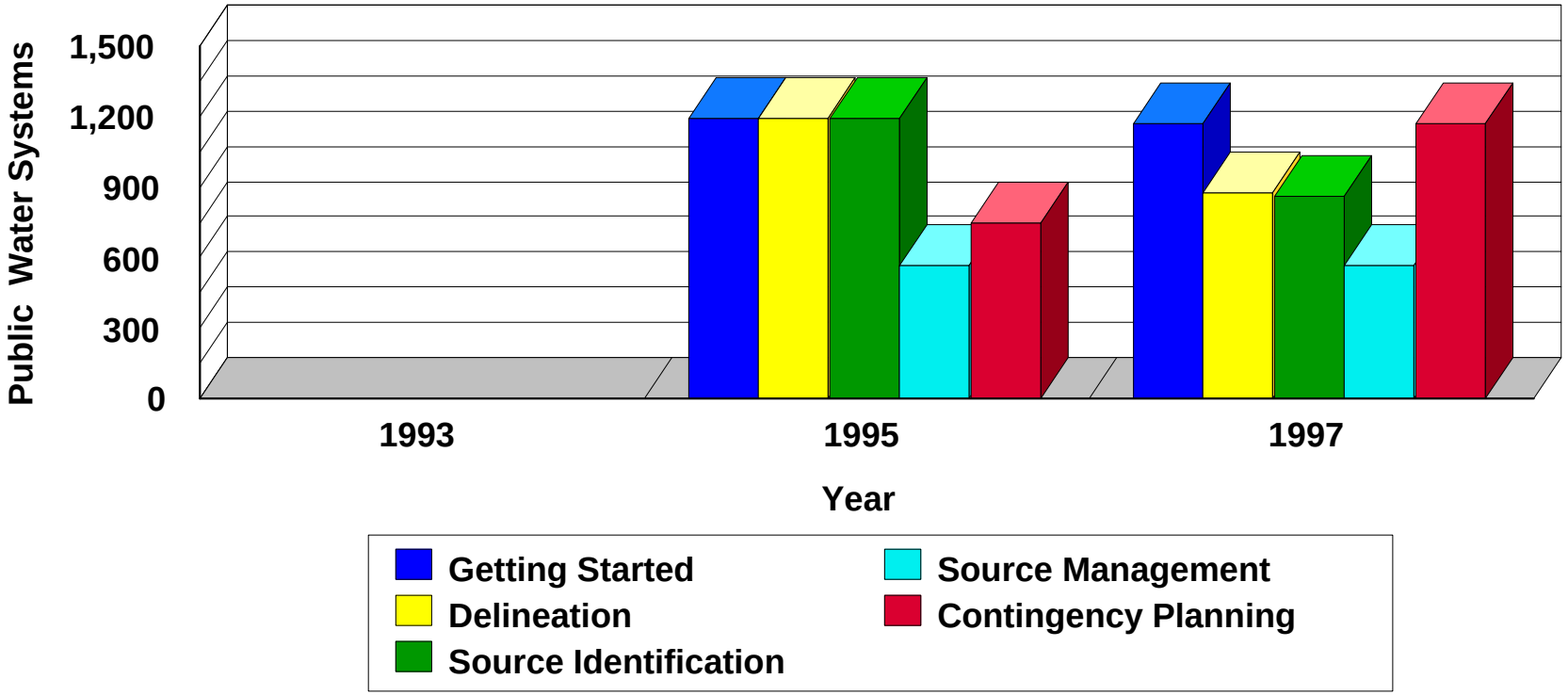
* Data not available/or optional reporting

N/A - Not applicable (Program not approved during reporting period)

ILLINOIS

WHP Implementation

Summary of Biennial Data



State Program Approved September 26, 1991

Wellhead Protection Implementation for Illinois
Summary of Biennial Reporting Data

	Reporting Period 1991-1993			Reporting Period 1993-1995			Reporting Period 1995-1997		
	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs
Total number of ground water dependent PWS systems	1,361	5,519	6,880	1,195	4,346	5,541	1,174	4,159	5,333
Total number of systems that have completed:									
Step 1: Getting Started	1,361	*	*	1,195	*	1,195	1,174	*	1,174
Step 2: Delineation	44/1361	*	*	111/1195	*	111/1195	875	*	875
Step 3: Identify Sources	36/1361	*	*	111/1195	*	111/1195	866	*	866
Step 4: Manage Sources	25/1361	*	*	570	*	570	570	*	570
Step 5: Contingency Planning	18/1361	*	*	748	*	748	1,174	*	1,174

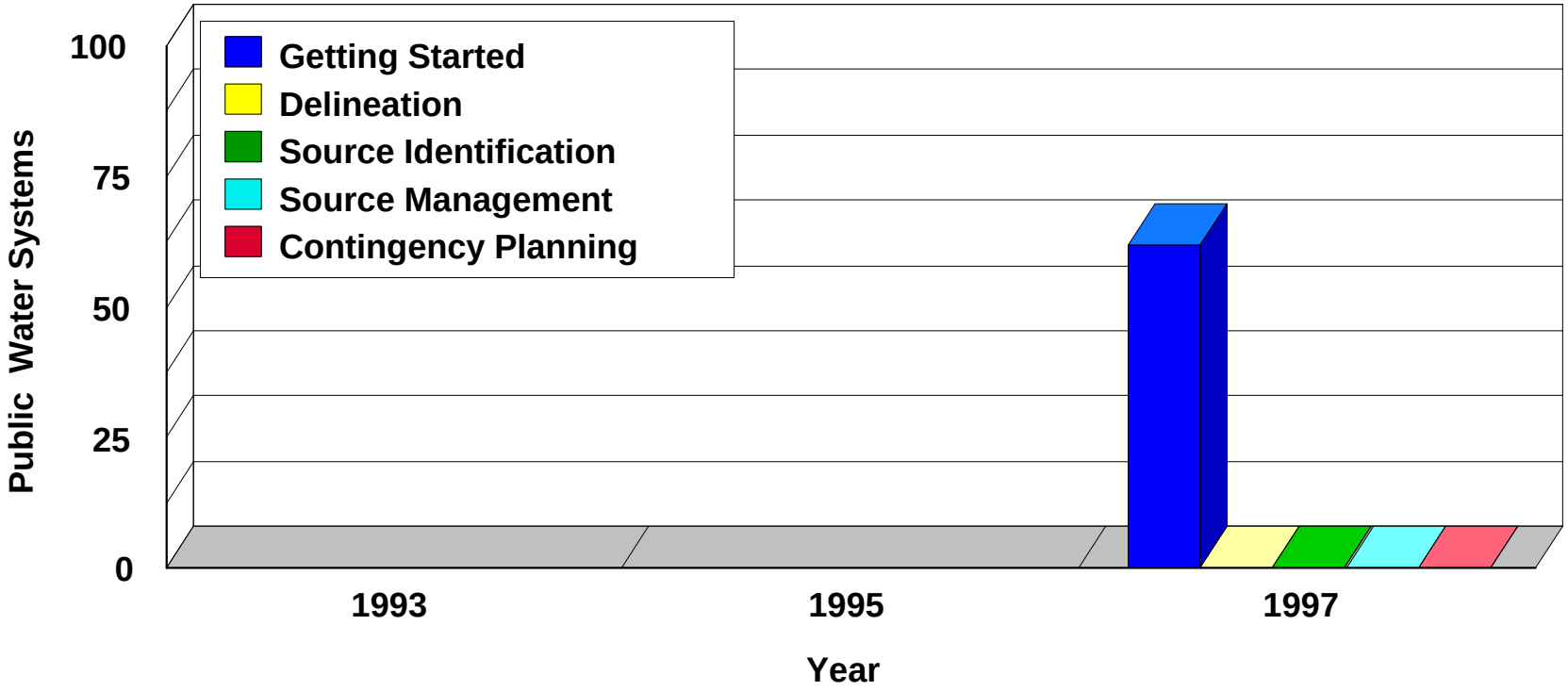
Comments/Observations/Problems: Illinois implements two phases of its program with a Phase I delineated area of 1000' and as necessary a Phase II delineation. During the 1991-1995, the State took credit for its effort to identify sources and manage (using the provisions under the Illinois Groundwater Protection Act) within the Phase I area. When 2 numbers are reported above for a step, the first number reflects the Phase II aspect and the second reflects the Phase I. For the 1997 report, the State revised its tracking to reflect more locally-driven efforts. Any decrease in the total number of PWSs over the reporting periods may be due to regionalization of systems or more accurate database tracking.

* Data not available/or optional reporting N/A - Not applicable (Program not approved during reporting period)

INDIANA

WHP Implementation

Summary of Biennial Data



State Program Approved November 13, 1995

Wellhead Protection Implementation for Indiana
Summary of Biennial Reporting Data

	Reporting Period 1991-1993			Reporting Period 1993-1995			Reporting Period 1995-1997		
	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs
Total number of ground water dependent PWS systems	N/A	N/A	N/A	N/A	N/A	N/A	742	2,806	4,168
Total number of systems that have completed:									
Step 1: Getting Started	N/A	N/A	N/A	N/A	N/A	N/A	62	*	62
Step 2: Delineation	N/A	N/A	N/A	N/A	N/A	N/A	0 (3)	*	0
Step 3: Identify Sources	N/A	N/A	N/A	N/A	N/A	N/A	0 (3)	*	0
Step 4: Manage Sources	N/A	N/A	N/A	N/A	N/A	N/A	0 (3)	*	0
Step 5: Contingency Planning	N/A	N/A	N/A	N/A	N/A	N/A	0 (3)	*	0

Comments/Observations/Problems: Indiana's WHPP was approved in April, 1997 and is partially implemented through a WHP rule effective March 28, 1997. The WHP Rule does not require communities to submit WHP plans until March, 2000. However, more progress is occurring than was reported since the Region funded at least 3 communities through management plan development under the demonstration grant program (Speedway, South Bend, Elkhart). However, the State does not officially report these because they are not State-approved.

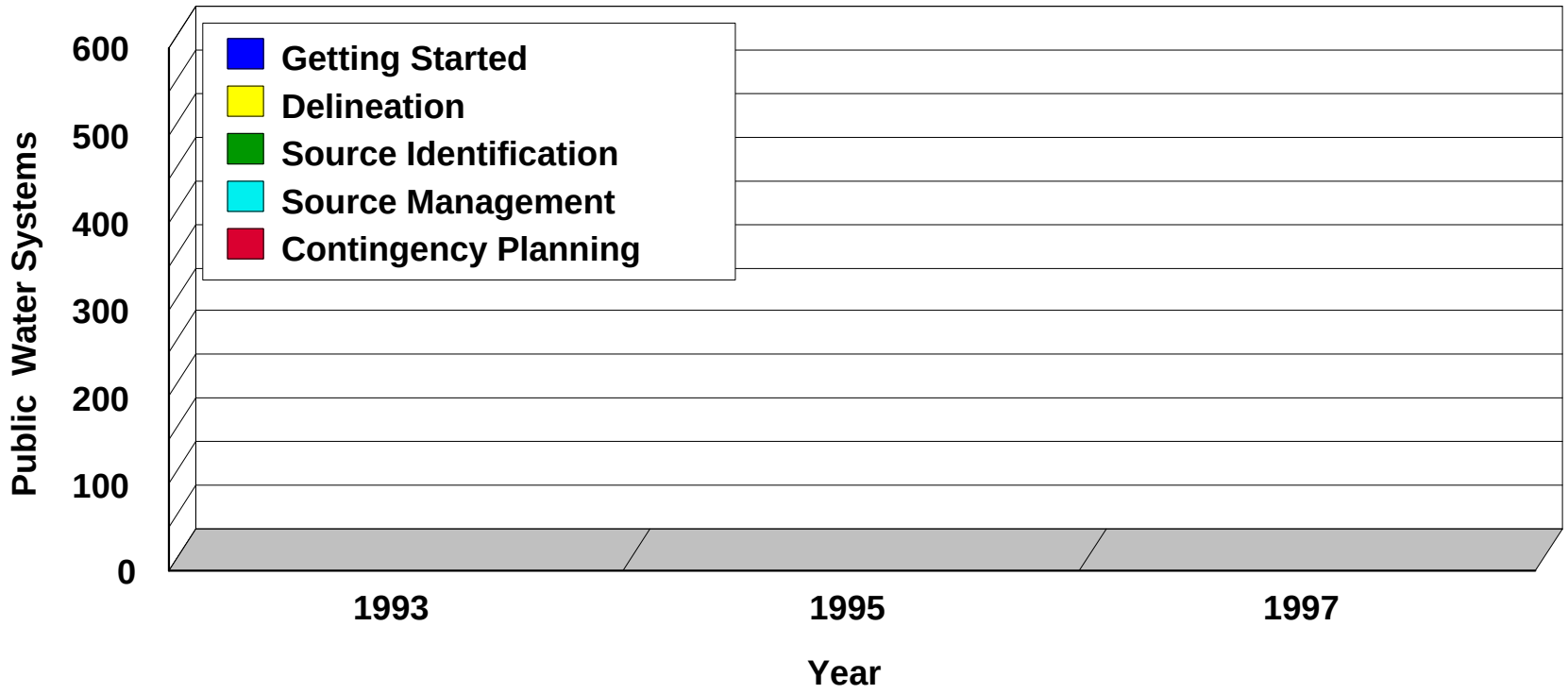
* Data not available/or optional reporting

N/A - Not applicable (Program not approved during reporting period)

K A N S A S

W H P I m p l e m e n t a t i o n

S u m m a r y o f B i e n n i a l D a t a



State Program Approved June 28, 1996

Wellhead Protection Implementation for Kansas
Summary of Biennial Reporting Data

	Reporting Period 1991-1993			Reporting Period 1993-1995			Reporting Period 1995-1997		
	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs
Total number of ground water dependent PWS systems	N/A	N/A	N/A	N/A	N/A	N/A	*	*	*
Total number of systems that have completed:									
Step 1: Getting Started	N/A	N/A	N/A	N/A	N/A	N/A	*	*	*
Step 2: Delineation	N/A	N/A	N/A	N/A	N/A	N/A	*	*	*
Step 3: Identify Sources	N/A	N/A	N/A	N/A	N/A	N/A	*	*	*
Step 4: Manage Sources	N/A	N/A	N/A	N/A	N/A	N/A	*	*	*
Step 5: Contingency Planning	N/A	N/A	N/A	N/A	N/A	N/A	*	*	*
Comments/Observations/Problems: Kansas' program was approved on June 28, 1996.									

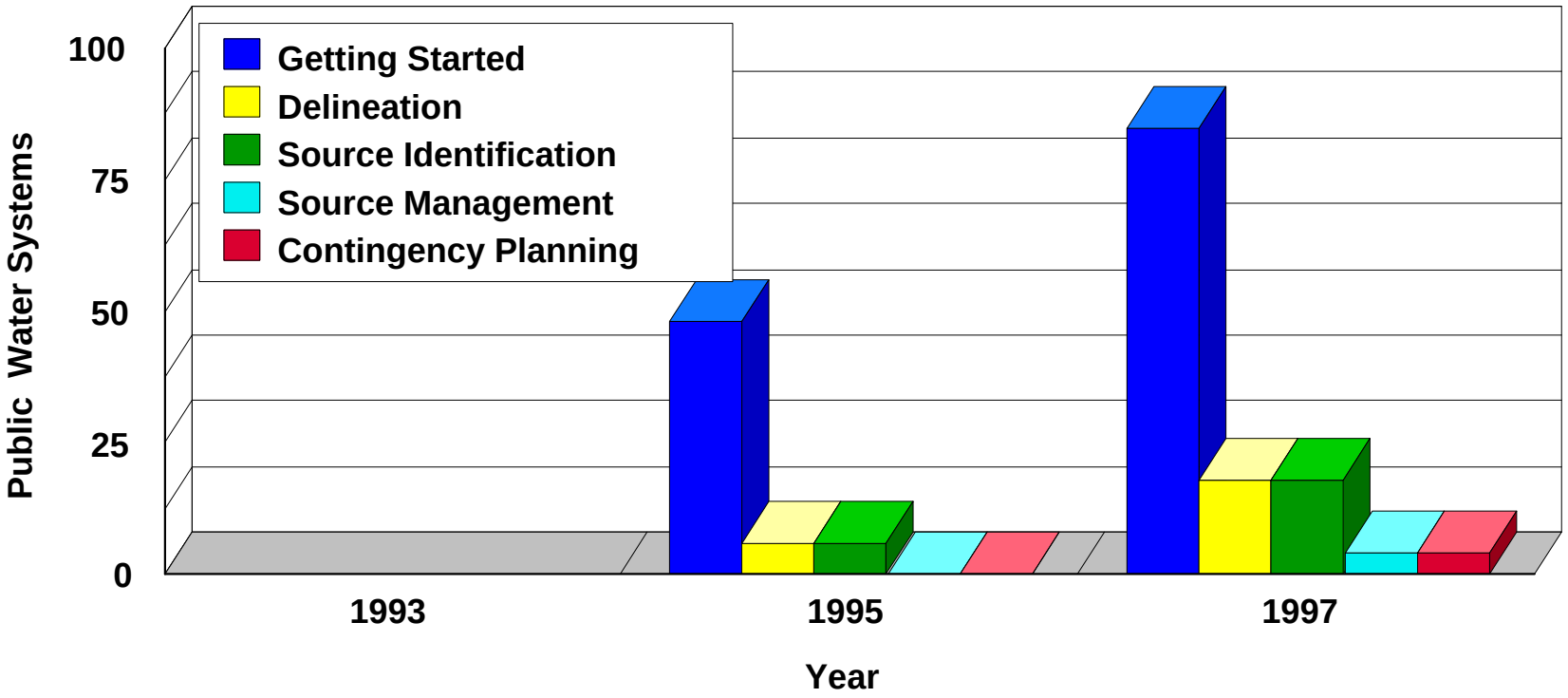
* Data not available/or optional reporting

N/A - Not applicable (Program not approved during reporting period)

KENTUCKY

WHP Implementation

Summary of Biennial Data



State Program Approved September 30, 1993

Wellhead Protection Implementation for Kentucky
Summary of Biennial Reporting Data

	Reporting Period 1991-1993			Reporting Period 1993-1995			Reporting Period 1995-1997		
	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs
Total number of ground water dependent PWS systems	N/A	N/A	N/A	174	259	433	155	169	324
Total number of systems that have completed:									
Step 1: Getting Started	N/A	N/A	N/A	35	13	48	62	23	85
Step 2: Delineation	N/A	N/A	N/A	*	6	6	11	7	18
Step 3: Identify Sources	N/A	N/A	N/A	*	6	6	11	7	18
Step 4: Manage Sources	N/A	N/A	N/A	*	*	0	3	1	4
Step 5: Contingency Planning	N/A	N/A	N/A	*	*	0	3	1	4
Comments/Observations/Problems: State WHP Program approved 9/30/93									

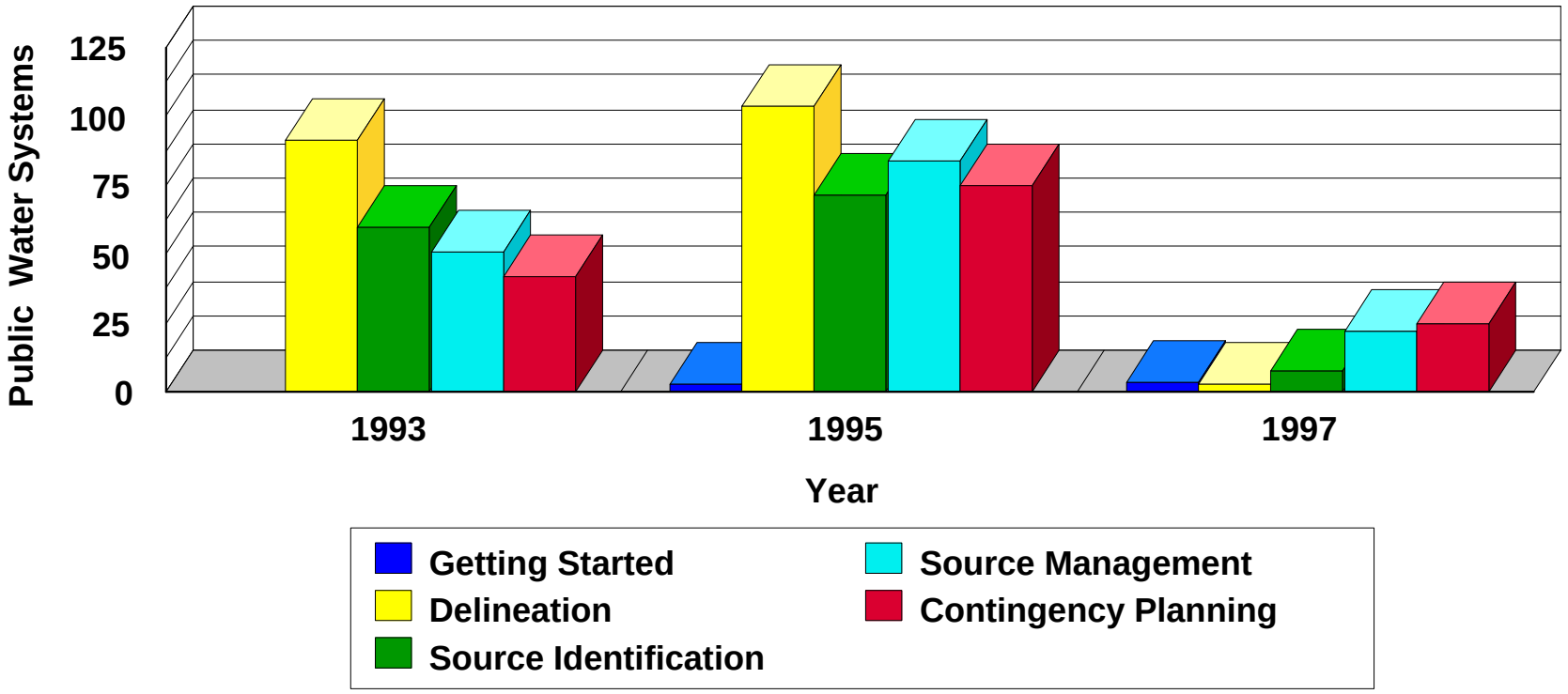
* Data not available/or optional reporting

N/A - Not applicable (Program not approved during reporting period)

L O U I S I A N A

W H P I m p l e m e n t a t i o n

S u m m a r y o f B i e n n i a l D a t a



State Program Approved March 16, 1990

Wellhead Protection Implementation for Louisiana
Summary of Biennial Reporting Data

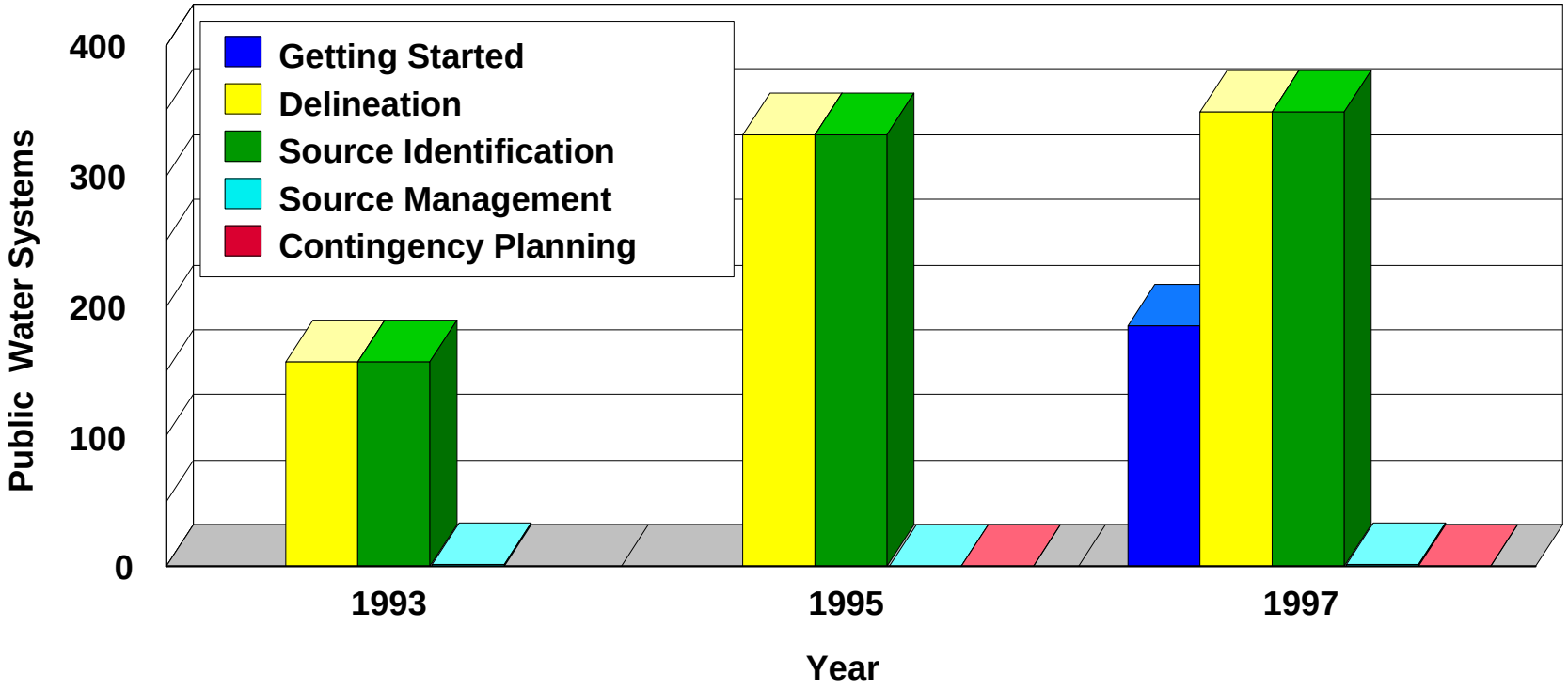
	Reporting Period 1991-1993			Reporting Period 1993-1995			Reporting Period 1995-1997		
	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs
Total number of ground water dependent PWS systems	*	*	1,259	1,170	840	2,010	1,104	686	1,790
Total number of systems that have completed:									
Step 1: Getting Started	*	*	*	*	*	3	*	*	4
Step 2: Delineation	*	*	92	*	*	104	*	*	3
Step 3: Identify Sources	*	*	60	*	*	72	*	*	8
Step 4: Manage Sources	*	*	51	*	*	84	*	*	22
Step 5: Contingency Planning	*	*	42	*	*	75	*	*	25
Comments/Observations/Problems: Figures not reported as cumulative values									

* Data not available/or optional reporting
N/A - Not applicable (Program not approved during reporting period)

MAINE

WHP Implementation

Summary of Biennial Data



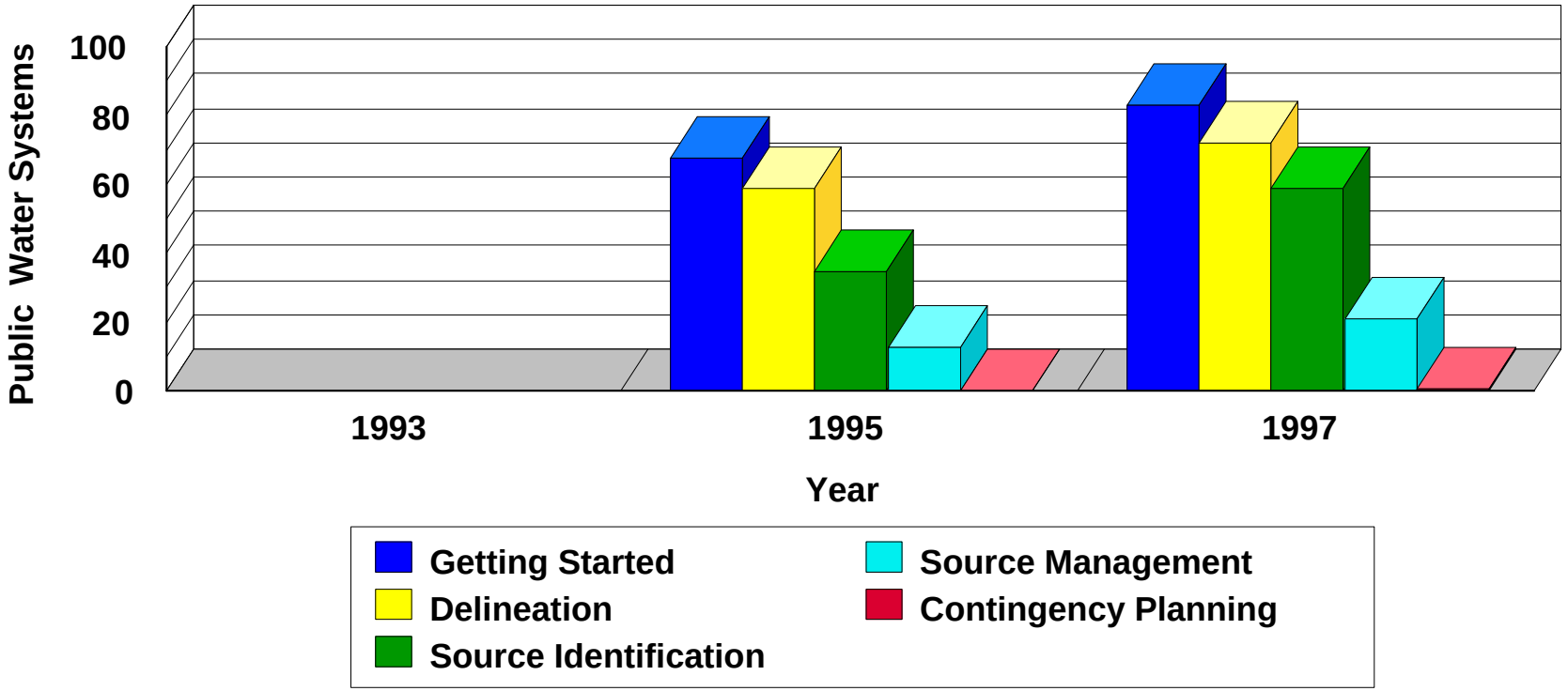
State Program Approved May 7, 1990

Wellhead Protection Implementation for Maine
Summary of Biennial Reporting Data

	Reporting Period 1991-1993			Reporting Period 1993-1995			Reporting Period 1995-1997		
	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs
Total number of ground water dependent PWS systems	*	*	2516	333	1858	2191	350	1690	2040
Total number of systems that have completed:									
Step 1: Getting Started	*	*	*	*	*	*	186	*	186
Step 2: Delineation	*	*	158	146	187	333	350	0	350
Step 3: Identify Sources	*	*	158	146	187	333	350	0	350
Step 4: Manage Sources	*	*	2	0	0	0	2	*	2
Step 5: Contingency Planning	*	*	*	0	0	0	0	*	0
Comments/Observations/Problems: In the 1991-93 reporting period, the numbers represent wellhead protection areas, not systems.									

* Data not available/or optional reporting

MARYLAND
WHP Implementation
Summary of Biennial Data



State Program Approved June 17, 1991

Wellhead Protection Implementation for Maryland
Summary of Biennial Reporting Data

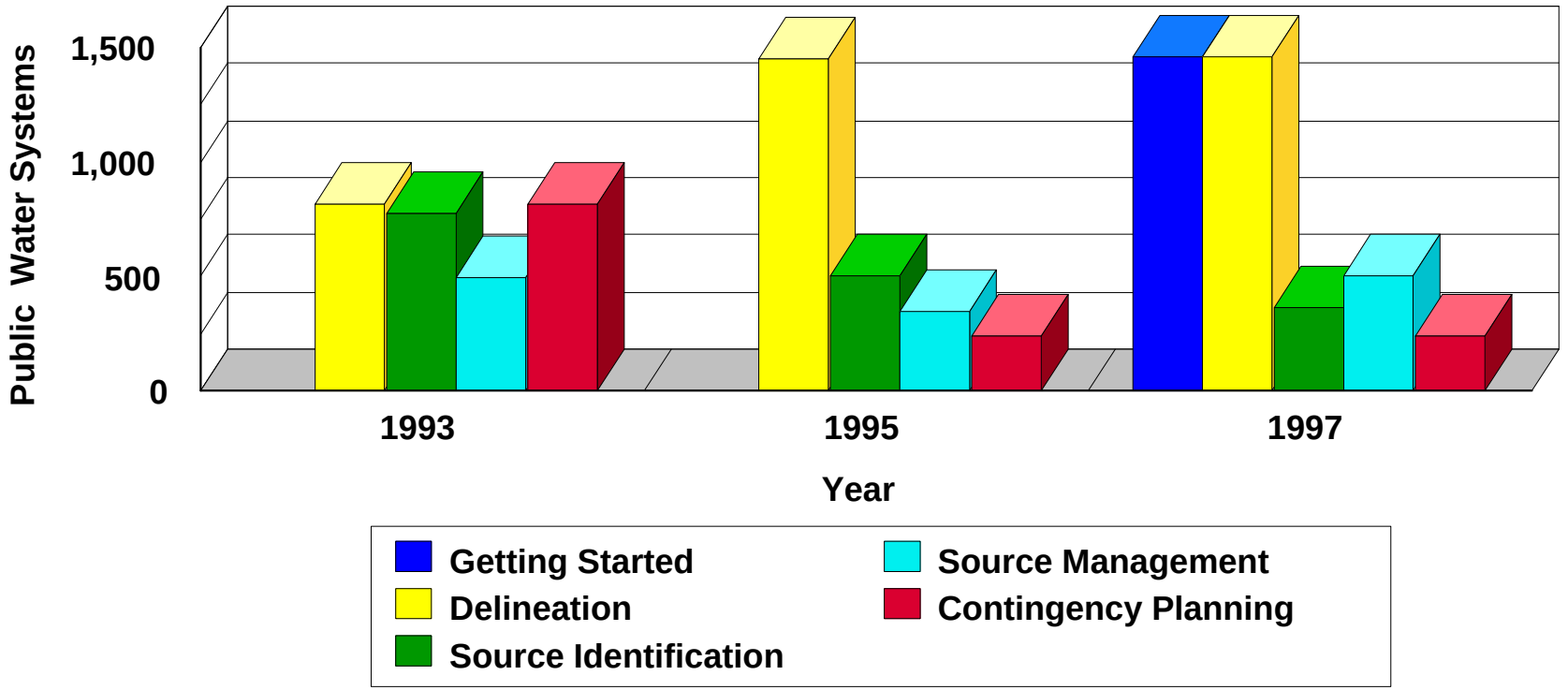
	Reporting Period 1991-1993			Reporting Period 1993-1995			Reporting Period 1995-1997		
	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs
Total number of ground water dependent PWS systems	*	*	*	460	2998	3458	454	3056	3510
Total number of systems that have completed:									
Step 1: Getting Started	*	*	*	68	*	68	81	2	83
Step 2: Delineation	*	*	*	59	*	59	70	2	72
Step 3: Identify Sources	*	*	*	35	*	35	57	2	59
Step 4: Manage Sources	*	*	*	13	*	13	19	2	21
Step 5: Contingency Planning	*	*	*	0	*	0	1	0	1
Comments/Observations/Problems:									

* Data not available/or optional reporting
N/A - Not applicable (Program not approved during reporting period)

MASSACHUSETTS

WHP Implementation

Summary of Biennial Data



State Program Approved September 13, 1990

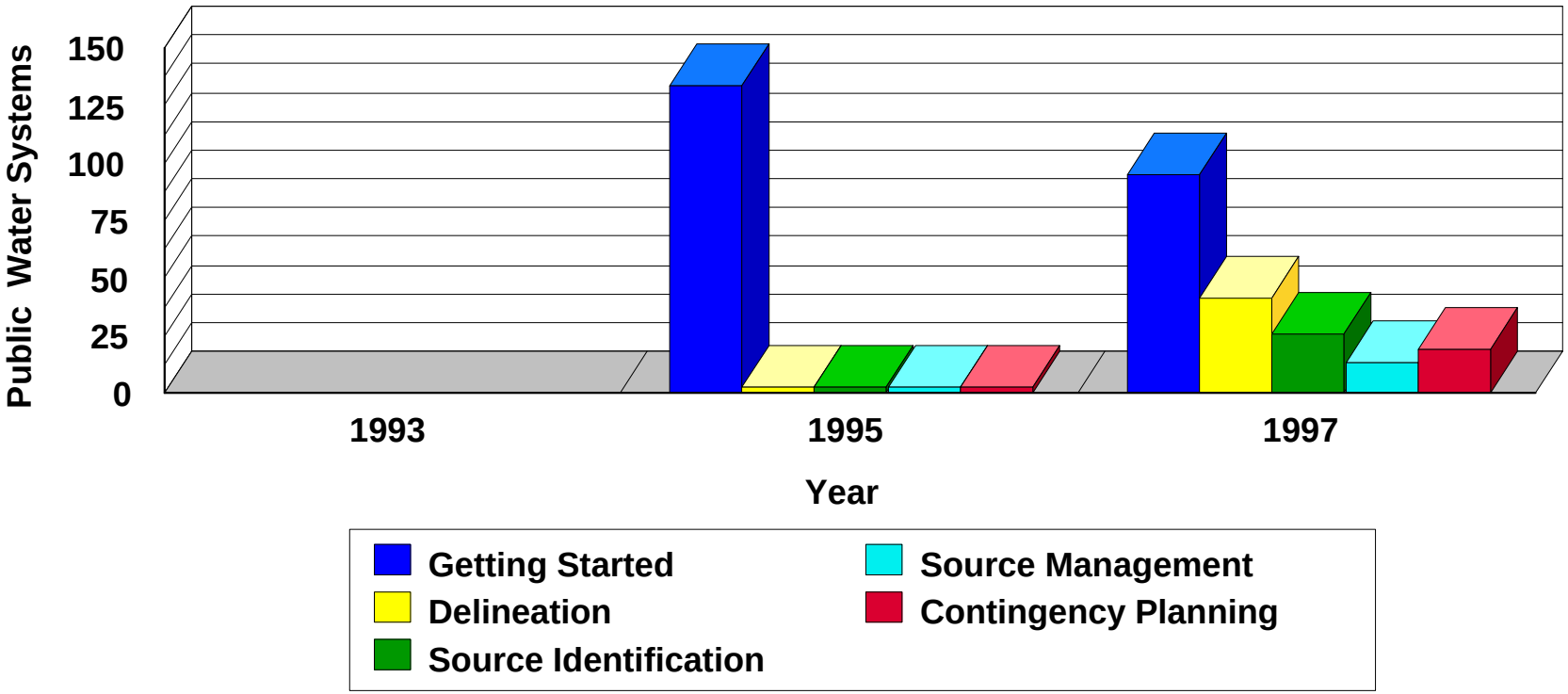
Wellhead Protection Implementation for Massachusetts
Summary of Biennial Reporting Data

	Reporting Period 1991-1993			Reporting Period 1993-1995			Reporting Period 1995-1997		
	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs
Total number of ground water dependent PWS systems	*	*	1418	440	1014	1454	424	1077	1501
Total number of systems that have completed:									
Step 1: Getting Started	*	*	*	*	*	*	383	1077	1460
Step 2: Delineation	699	131	821	440	1014	1454	383	1077	1460
Step 3: Identify Sources	*	*	780	420	87	507	368	0	368
Step 4: Manage Sources	*	*	500	349	*	349	347	158	505
Step 5: Contingency Planning	*	*	821	242	*	242	242	*	242

Comments/Observations/Problems: In 1993 and 1995, "Getting Started" activities were not tracked. In the 1991-1993 reporting period, the numbers for each step reflects WHPAs, not systems. Massachusetts protects source water; therefore, it is at times difficult to differentiate systems that are solely groundwater dependent from those that are both ground and surface water sources. Therefore, mixed systems are included in this table.

* Data not available/or optional reporting

MICHIGAN
WHP Implementation
Summary of Biennial Data



State Program Approved February 24, 1994

Wellhead Protection Implementation for Michigan
Summary of Biennial Reporting Data

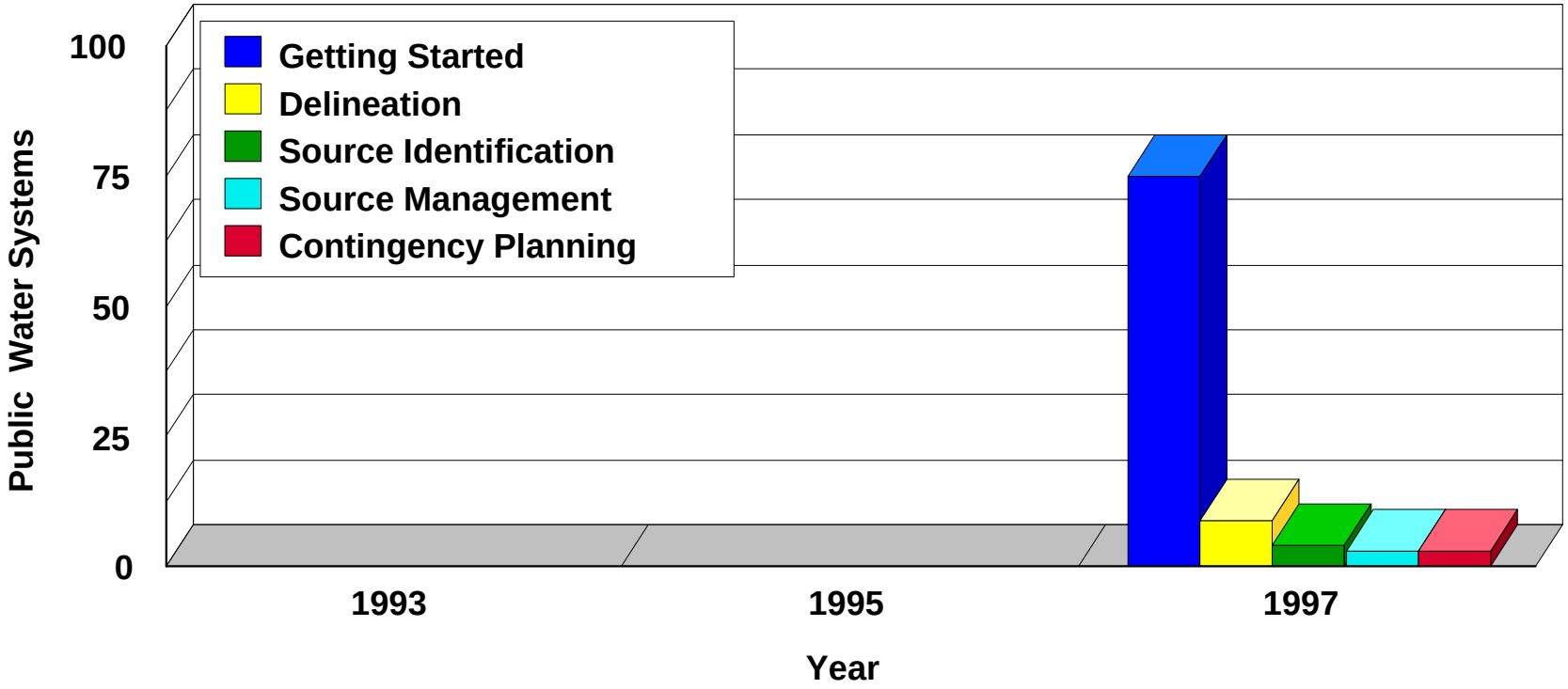
	Reporting Period 1991-1993			Reporting Period 1993-1995			Reporting Period 1995-1997		
	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs
Total number of ground water dependent PWS systems	N/A	N/A	N/A	*	*	13,000	1,322	10,530	11,852
Total number of systems that have completed:									
Step 1: Getting Started	N/A	N/A	N/A	134	*	134	95	*	95
Step 2: Delineation	N/A	N/A	N/A	3	*	3	42	*	42
Step 3: Identify Sources	N/A	N/A	N/A	3	*	3	26	*	26
Step 4: Manage Sources	N/A	N/A	N/A	3	*	3	14	*	14
Step 5: Contingency Planning	N/A	N/A	N/A	3	*	3	19	*	19

Comments/Observations/Problems: Michigan's program was approved in February, 1994 and is a voluntary program for the systems. Any decrease in the total number of PWSs over the reporting periods may be due to regionalization of systems or more accurate database tracking.

* Data not available/or optional reporting

N/A - Not applicable (Program not approved during reporting period)

MINNESOTA
WHP Implementation
Summary of Biennial Data



State Program Approved March 18, 1996

Wellhead Protection Implementation for Minnesota
Summary of Biennial Reporting Data

	Reporting Period 1991-1993			Reporting Period 1993-1995			Reporting Period 1995-1997		
	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs
Total number of ground water dependent PWS systems	N/A	N/A	N/A	N/A	N/A	N/A	919	7,709	8,628
Total number of systems that have completed:									
Step 1: Getting Started	N/A	N/A	N/A	N/A	N/A	N/A	75	*	75
Step 2: Delineation	N/A	N/A	N/A	N/A	N/A	N/A	9	*	9
Step 3: Identify Sources	N/A	N/A	N/A	N/A	N/A	N/A	4	*	4
Step 4: Manage Sources	N/A	N/A	N/A	N/A	N/A	N/A	3	*	3
Step 5: Contingency Planning	N/A	N/A	N/A	N/A	N/A	N/A	3	*	3

Comments/Observations/Problems: Minnesota's program was approved in March, 1996. The State Wellhead Protection Rule was promulgated on November 3, 1997 and public water supplies are required to submit WHPPs pursuant to a timeline set by the Minnesota Department of Health.

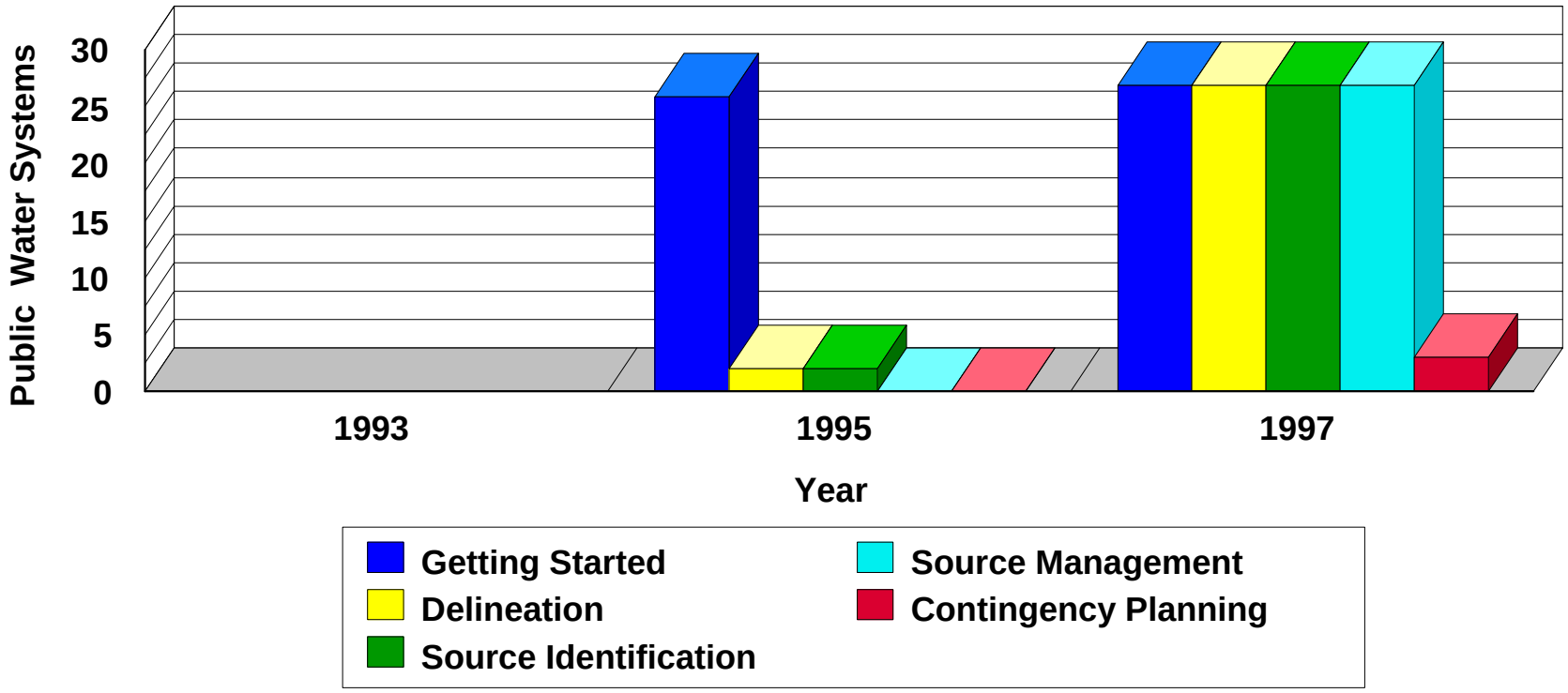
* Data not available/or optional reporting

N/A - Not applicable (Program not approved during reporting period)

MISSISSIPPI

WHP Implementation

Summary of Biennial Data



State Program Approved September 30, 1993

Wellhead Protection Implementation for Mississippi
Summary of Biennial Reporting Data

	Reporting Period 1991-1993			Reporting Period 1993-1995			Reporting Period 1995-1997		
	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs
Total number of ground water dependent PWS systems	N/A	N/A	N/A	1269	309	1578	1250	292	1542
Total number of systems that have completed:									
Step 1: Getting Started	N/A	N/A	N/A	26	*	26	27	*	27
Step 2: Delineation	N/A	N/A	N/A	2	*	2	27	*	27
Step 3: Identify Sources	N/A	N/A	N/A	2	*	2	27	*	27
Step 4: Manage Sources	N/A	N/A	N/A	*	*	0	27	*	27
Step 5: Contingency Planning	N/A	N/A	N/A	*	*	0	3	*	3
Comments/Observations/Problems: State WHP Program approved 9/30/93									

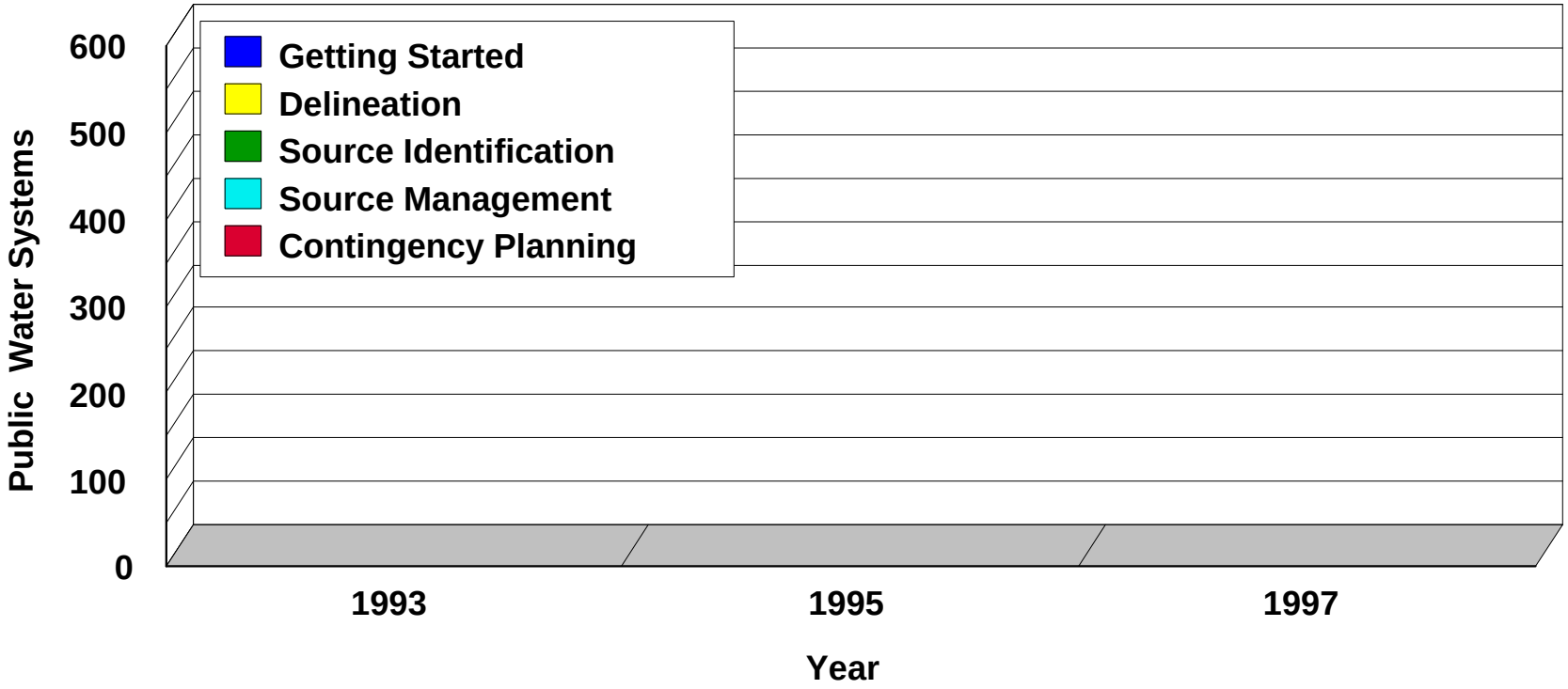
* Data not available/or optional reporting

N/A - Not applicable (Program not approved during reporting period)

MISSOURI

WHP Implementation

Summary of Biennial Data



State Program Approved March 17, 1995

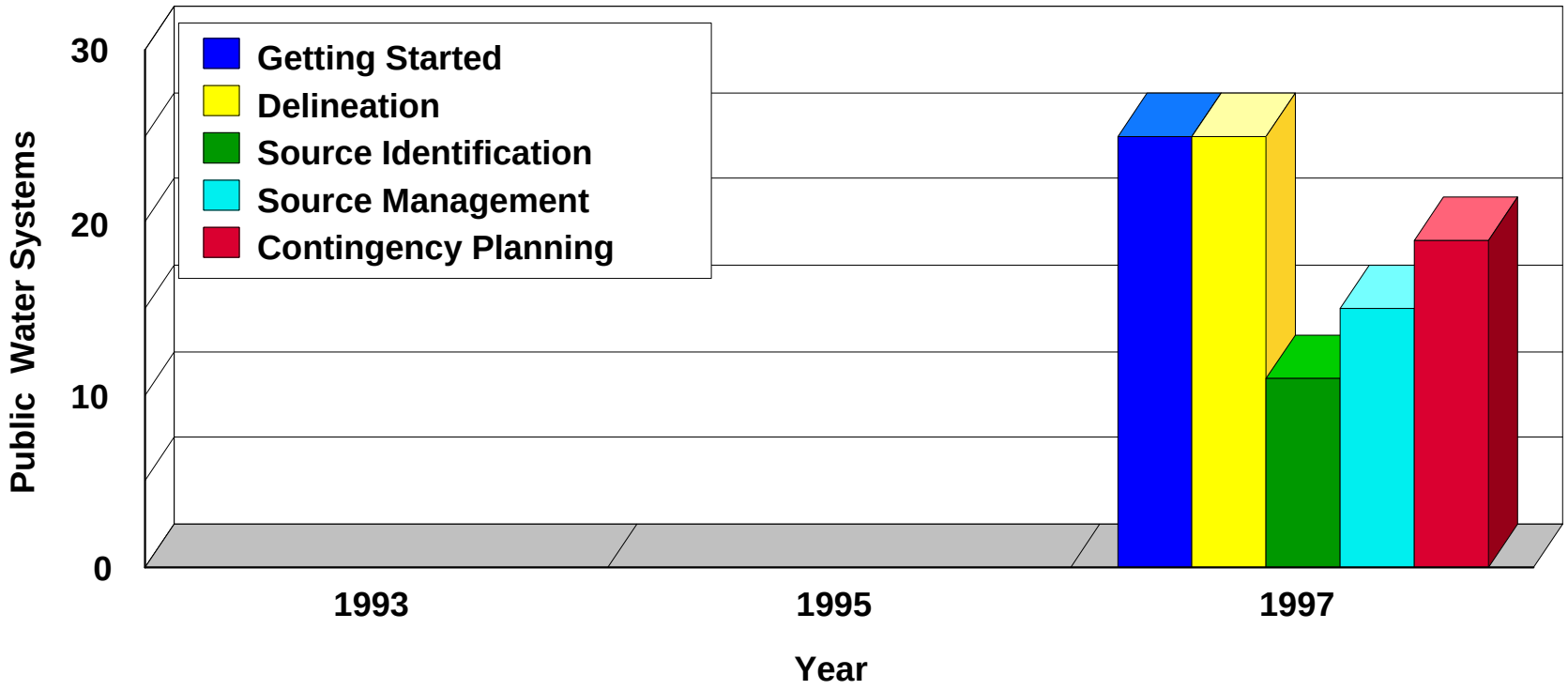
Wellhead Protection Implementation for Missouri
Summary of Biennial Reporting Data

	Reporting Period 1991-1993			Reporting Period 1993-1995			Reporting Period 1995-1997		
	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs
Total number of ground water dependent PWS systems	N/A	N/A	N/A	N/A	N/A	N/A	*	*	*
Total number of systems that have completed:									
Step 1: Getting Started	N/A	N/A	N/A	N/A	N/A	N/A	*	*	*
Step 2: Delineation	N/A	N/A	N/A	N/A	N/A	N/A	*	*	*
Step 3: Identify Sources	N/A	N/A	N/A	N/A	N/A	N/A	*	*	*
Step 4: Manage Sources	N/A	N/A	N/A	N/A	N/A	N/A	*	*	*
Step 5: Contingency Planning	N/A	N/A	N/A	N/A	N/A	N/A	*	*	*
Comments/Observations/Problems: Missouri's program was approved March 17, 1995.									

* Data not available/or optional reporting

N/A - Not applicable (Program not approved during reporting period)

MONTANA
WHP Implementation
Summary of Biennial Data



State Program Approved October 21, 1994

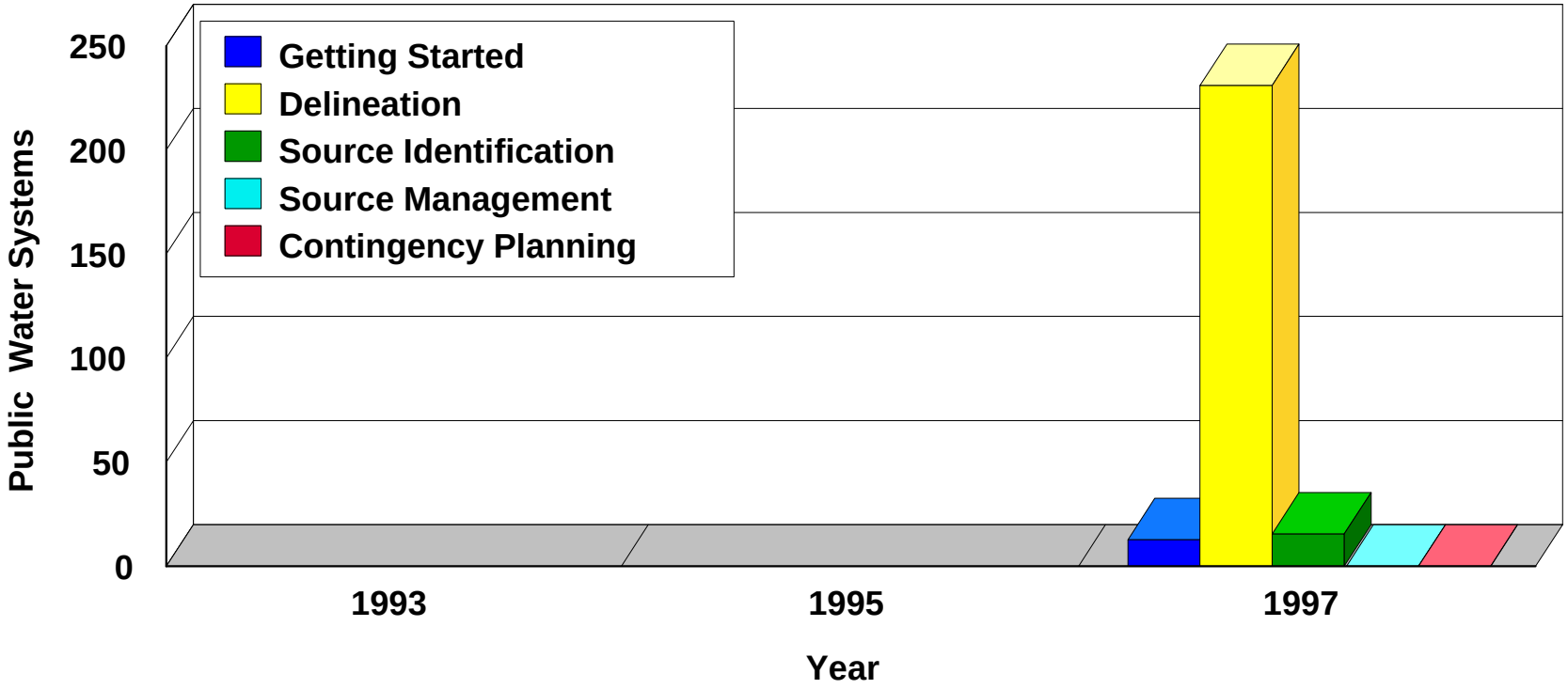
Wellhead Protection Implementation for Montana
Summary of Biennial Reporting Data

	Reporting Period 1991-1993			Reporting Period 1993-1995			Reporting Period 1995-1997		
	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs
Total number of ground water dependent PWS systems	N/A	N/A	N/A	N/A	N/A	N/A	551	*	1752
Total number of systems that have completed:									
Step 1: Getting Started	N/A	N/A	N/A	N/A	N/A	N/A	*	*	25
Step 2: Delineation	N/A	N/A	N/A	N/A	N/A	N/A	*	*	25
Step 3: Identify Sources	N/A	N/A	N/A	N/A	N/A	N/A	*	*	11
Step 4: Manage Sources	N/A	N/A	N/A	N/A	N/A	N/A	*	*	15
Step 5: Contingency Planning	N/A	N/A	N/A	N/A	N/A	N/A	*	*	19
Comments/Observations/Problems: Montana's program was approved October 21, 1994.									

* Data not available/or optional reporting

N/A - Not applicable (Program not approved during reporting period)

NEBRASKA
WHP Implementation
Summary of Biennial Data



State Program Approved June 19, 1991

Wellhead Protection Implementation for Nebraska
Summary of Biennial Reporting Data

	Reporting Period 1991-1993			Reporting Period 1993-1995			Reporting Period 1995-1997		
	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs
Total number of ground water dependent PWS systems	*	*	*	*	*	*	*	*	*
Total number of systems that have completed:									
Step 1: Getting Started	*	*	*	*	*	*		*	13
Step 2: Delineation	*	*	*	*	*	*		*	231
Step 3: Identify Sources	*	*	*	*	*	*		*	16
Step 4: Manage Sources	*	*	*	*	*	*		*	0
Step 5: Contingency Planning	*	*	*	*	*	*		*	0
Comments/Observations/Problems: Nebraska's program was approved June 19, 1991.									

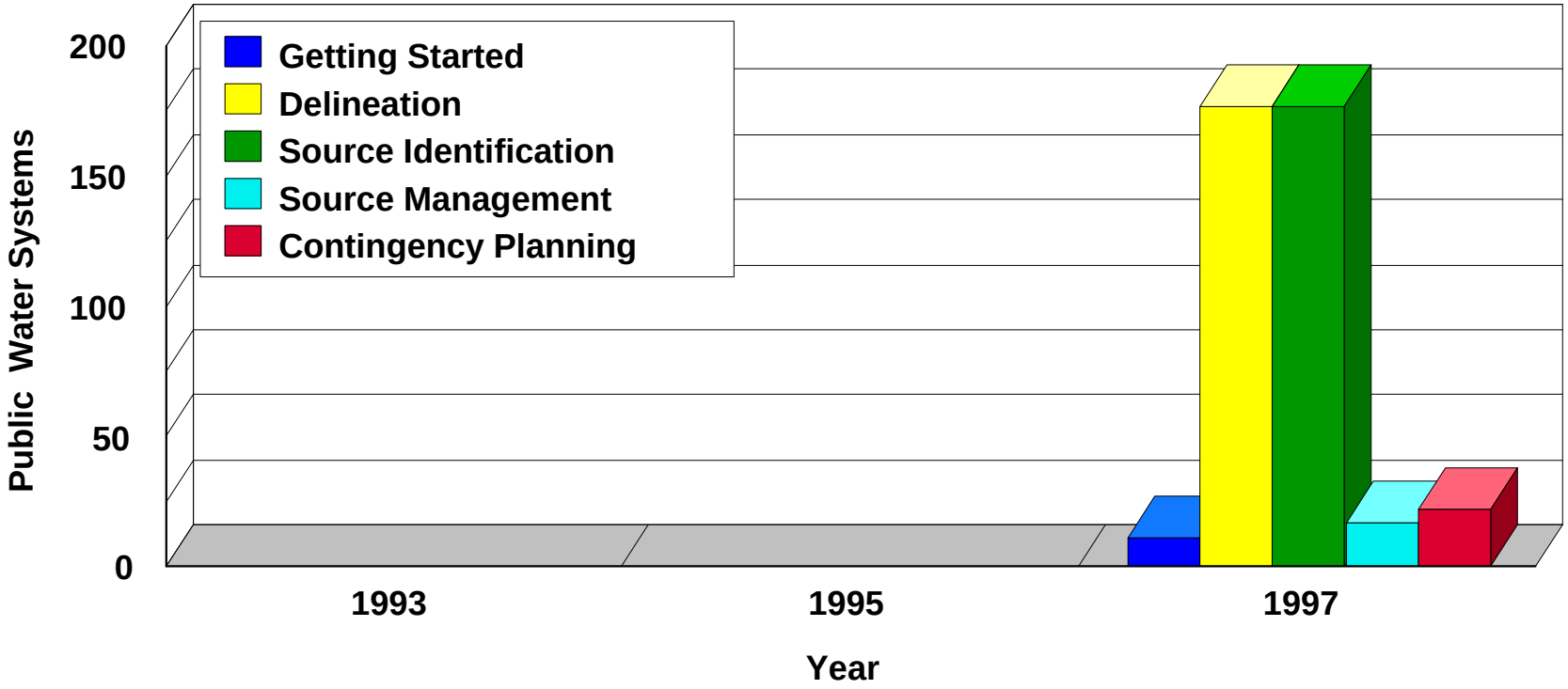
* Data not available/or optional reporting

N/A - Not applicable (Program not approved during reporting period)

NEVADA

WHP Implementation

Summary of Biennial Data



State Program Approved February 22, 1994

Wellhead Protection Implementation for Nevada
Summary of Biennial Reporting Data

	Reporting Period 1991-1993			Reporting Period 1993-1995			Reporting Period 1995-1997		
	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs
Total number of ground water dependent PWS systems	N/A	N/A	N/A	N/A	N/A	N/A	282	391	673
Total number of systems that have completed:									
Step 1: Getting Started	N/A	N/A	N/A	N/A	N/A	N/A	11	*	11
Step 2: Delineation	N/A	N/A	N/A	N/A	N/A	N/A	154	23	177
Step 3: Identify Sources	N/A	N/A	N/A	N/A	N/A	N/A	154	23	177
Step 4: Manage Sources	N/A	N/A	N/A	N/A	N/A	N/A	15	2	17
Step 5: Contingency Planning	N/A	N/A	N/A	N/A	N/A	N/A	18	4	22
Comments/Observations/Problems:									

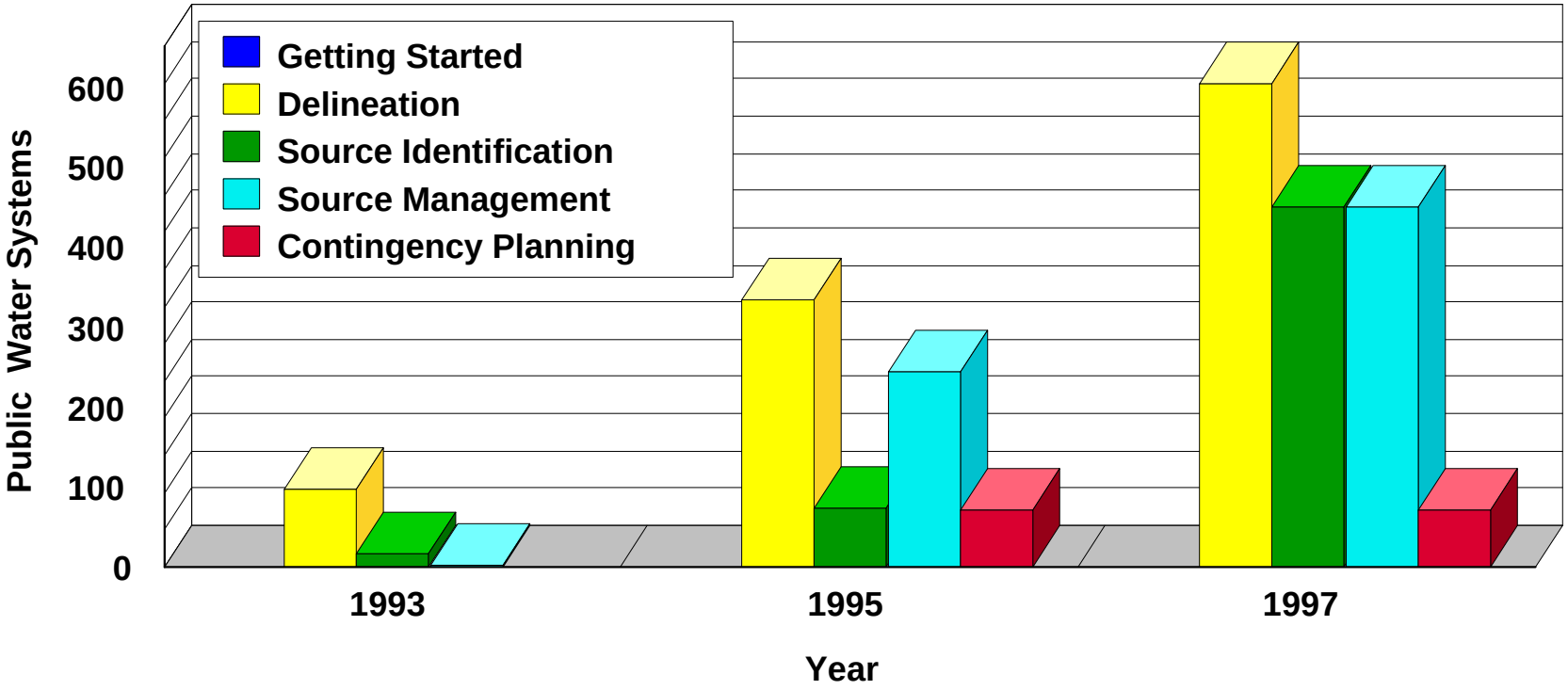
* Data not available/or optional reporting

N/A - Not applicable (Program not approved during reporting period)

NEW HAMPSHIRE

WHP Implementation

Summary of Biennial Data



State Program Approved September 13, 1990

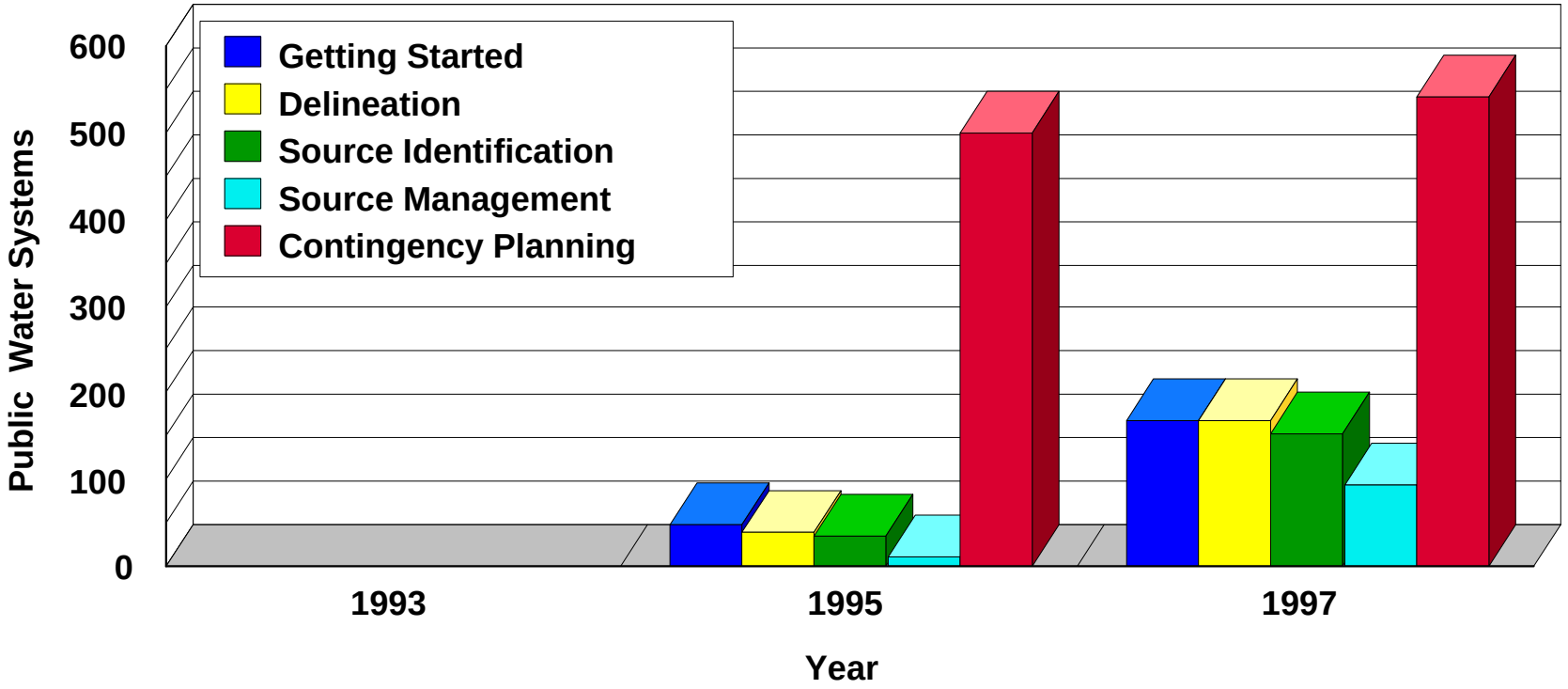
Wellhead Protection Implementation for New Hampshire
Summary of Biennial Reporting Data

	Reporting Period 1991-1993			Reporting Period 1993-1995			Reporting Period 1995-1997		
	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs
Total number of ground water dependent PWS systems	*	*	2118	645	1463	2108	642	1456	2098
Total number of systems that have completed:									
Step 1: Getting Started	*	*	*	*	*	*	*	*	*
Step 2: Delineation	97	*	97	334	*	334	603	*	603
Step 3: Identify Sources	18	*	18	74	*	74	451	*	451
Step 4: Manage Sources	4	*	4	244	*	244	451	*	451
Step 5: Contingency Planning	*	*	*	71	*	71	71	*	71

Comments/Observations/Problems: In 1993, the total number of systems were not separated in to community and non-community. Also, the reported numbers are WHPAs, not systems, and were assumed to be community water systems, since no activity for non-community water systems, were reported for the following years. In 1995 and 1997, there was a discrepancy in the total number of ground-water dependent PWS, when adding the number of CWSs and NCWSs as compared to the total number PWSs as listed in the standard reporting section; the numbers in this chart are the summation totals rather than the listed total in the report. New Hampshire does not report Step 1.

* Data not available/or optional reporting

NEW JERSEY
WHP Implementation
Summary of Biennial Data



State Program Approved December 5, 1991

Wellhead Protection Implementation for New Jersey
Summary of Biennial Reporting Data

	Reporting Period 1991-1993			Reporting Period [1] 1993-1995			Reporting Period 1995-1997		
	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs
Total number of ground water dependent PWS systems	*	*	*	500	*	500	542	*	542
Total number of systems that have completed:									0
Step 1: Getting Started	*	*	*	50	*	50	168	*	168
Step 2: Delineation	*	*	*	40	*	40	168	*	168
Step 3: Identify Sources	*	*	*	35	*	35	154	*	154
Step 4: Manage Sources	*	*	*	12	*	12	94	*	94
Step 5: Contingency Planning	*	*	*	500	*	500	542	*	542
Comments/Observations/Problems: 1) The 1993-5 figures are estimates as no formal report was submitted.									

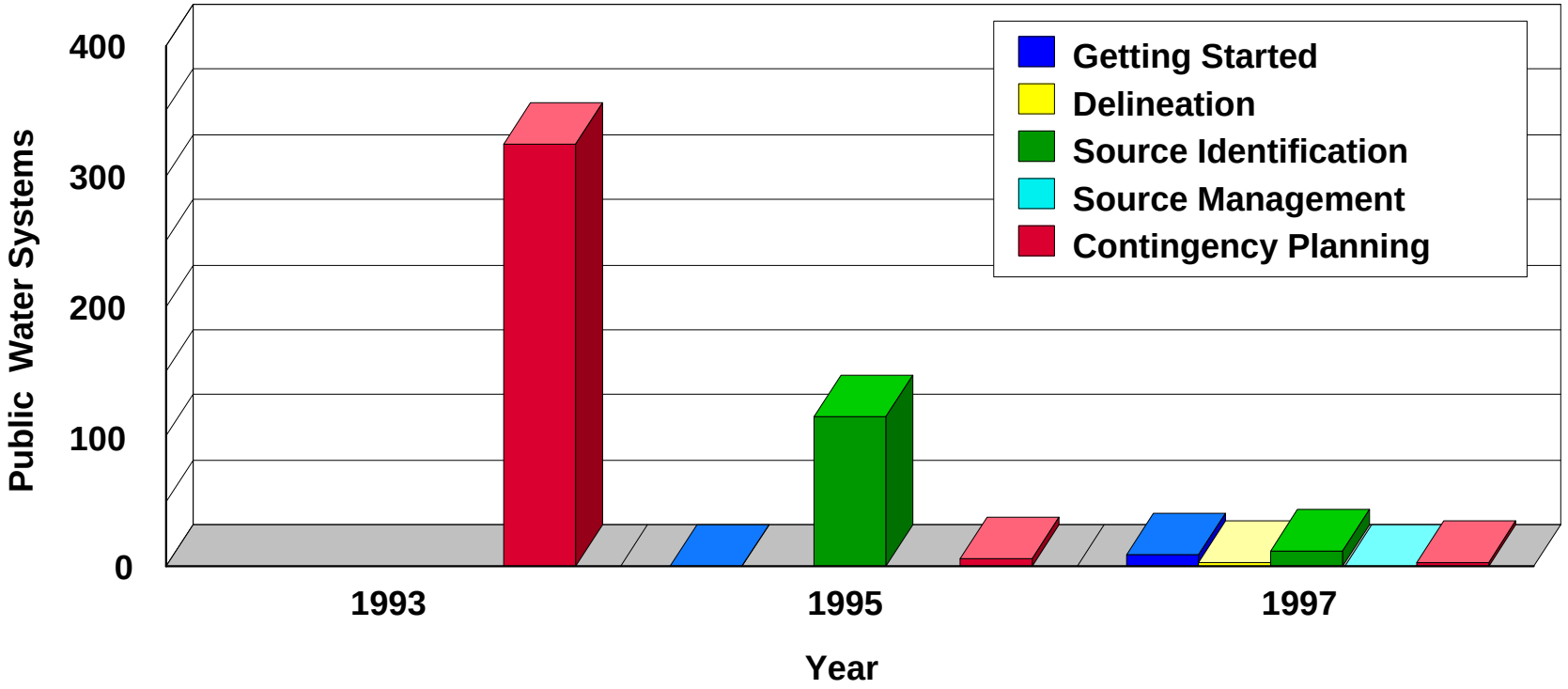
* Data not available/or optional reporting

N/A - Not applicable (Program not approved during reporting period)

NEW MEXICO

WHP Implementation

Summary of Biennial Data



State Program Approved March 16, 1990

Wellhead Protection Implementation for New Mexico
Summary of Biennial Reporting Data

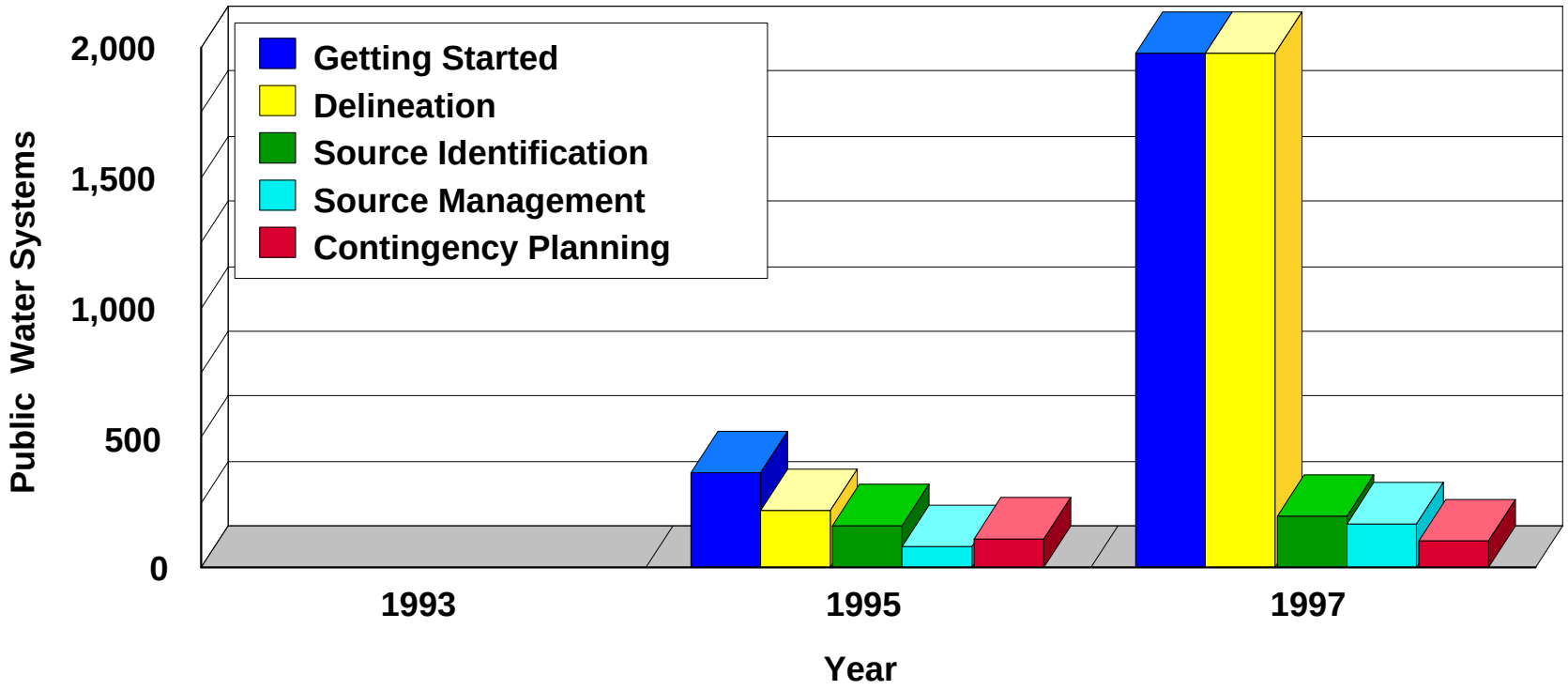
	Reporting Period 1991-1993			Reporting Period 1993-1995			Reporting Period 1995-1997		
	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs
Total number of ground water dependent PWS systems	*	*	1,174	558	606	1,164	599	663	1,262
Total number of systems that have completed:									
Step 1: Getting Started	*	*	*	*	*	0	*	*	9
Step 2: Delineation	*	*	*	*	*	*	*	*	4
Step 3: Identify Sources	*	*	*	*	*	115	*	*	12
Step 4: Manage Sources	*	*	*	*	*	*	*	*	1
Step 5: Contingency Planning	*	*	325	*	*	6	*	*	3
Comments/Observations/Problems: 91 - 93 Data is the number of wells vs. number of systems.									

* Data not available/or optional reporting
N/A - Not applicable (Program not approved during reporting period)

NEW YORK

WHP Implementation

Summary of Biennial Data



State Program Approved September 27, 1990

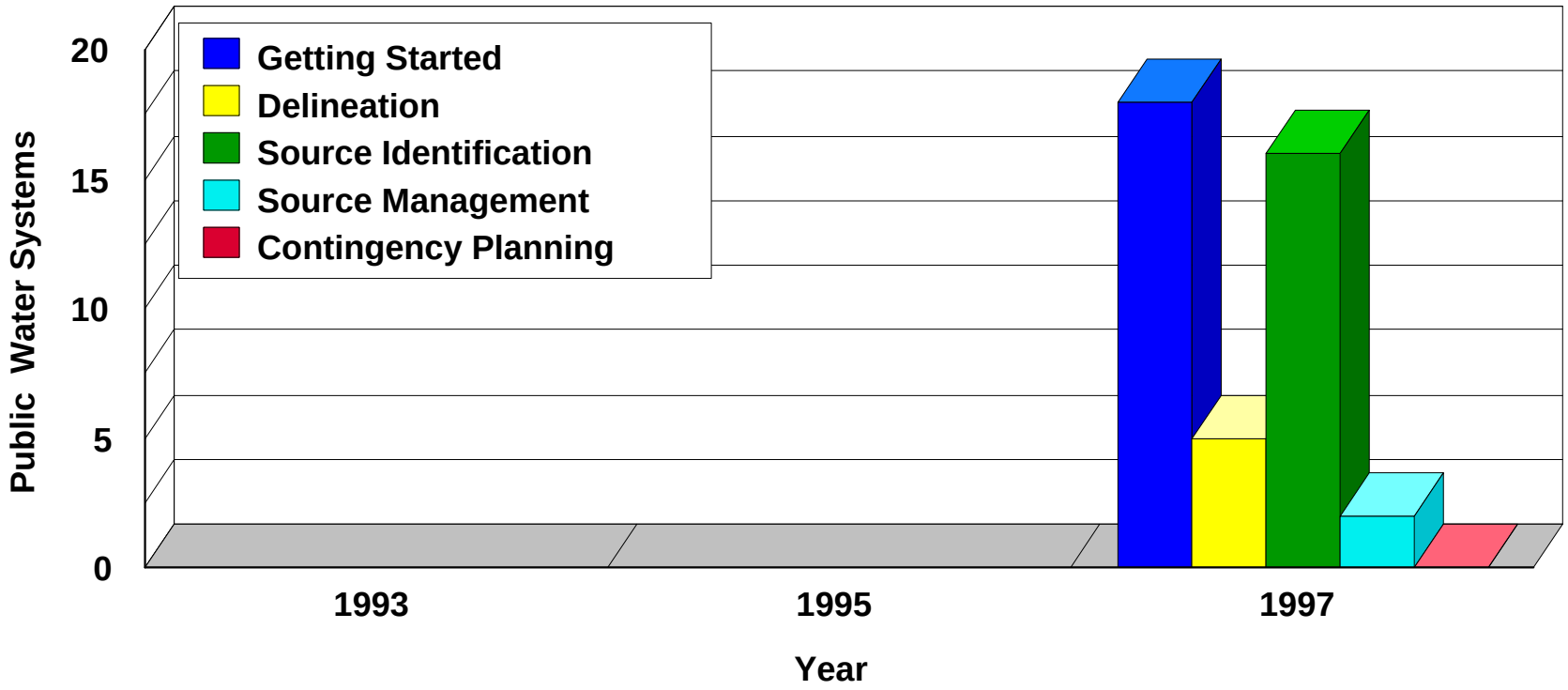
Wellhead Protection Implementation for New York
Summary of Biennial Reporting Data

	Reporting Period 1991-1993			Reporting Period 1993-1995			Reporting Period 1995-1997		
	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs
Total number of ground water dependent PWS systems	*	*	*	2,458	6,740	9,198	1,986	6,499	8,485
Total number of systems that have completed:									
Step 1: Getting Started	*	*	*	370	*	370	1985[1]	*	1985[1]
Step 2: Delineation	*	*	*	220	*	220	1985[2]	*	1985[2]
Step 3: Identify Sources	*	*	*	160	*	160	199	*	199
Step 4: Manage Sources	*	*	*	85	*	85	174	*	174
Step 5: Contingency Planning	*	*	*	110	*	110	108	*	108

Comments/Observations/Problems: 1) The establishment of County Water Quality Coordinating Committees (CWQCCs) in all counties is considered to satisfy the "getting started" criterion. Excluding theactivities of CWQCCs, it is estimated that 438 would satisfy the criteria.
2) All CWS systems are covered by the baseline delineation adopted by the NYS WHPP.

* Data not available/or optional reporting
N/A - Not applicable (Program not approved during reporting period)

NORTH CAROLINA
WHP Implementation
Summary of Biennial Data



State Program Approved March 28, 1995

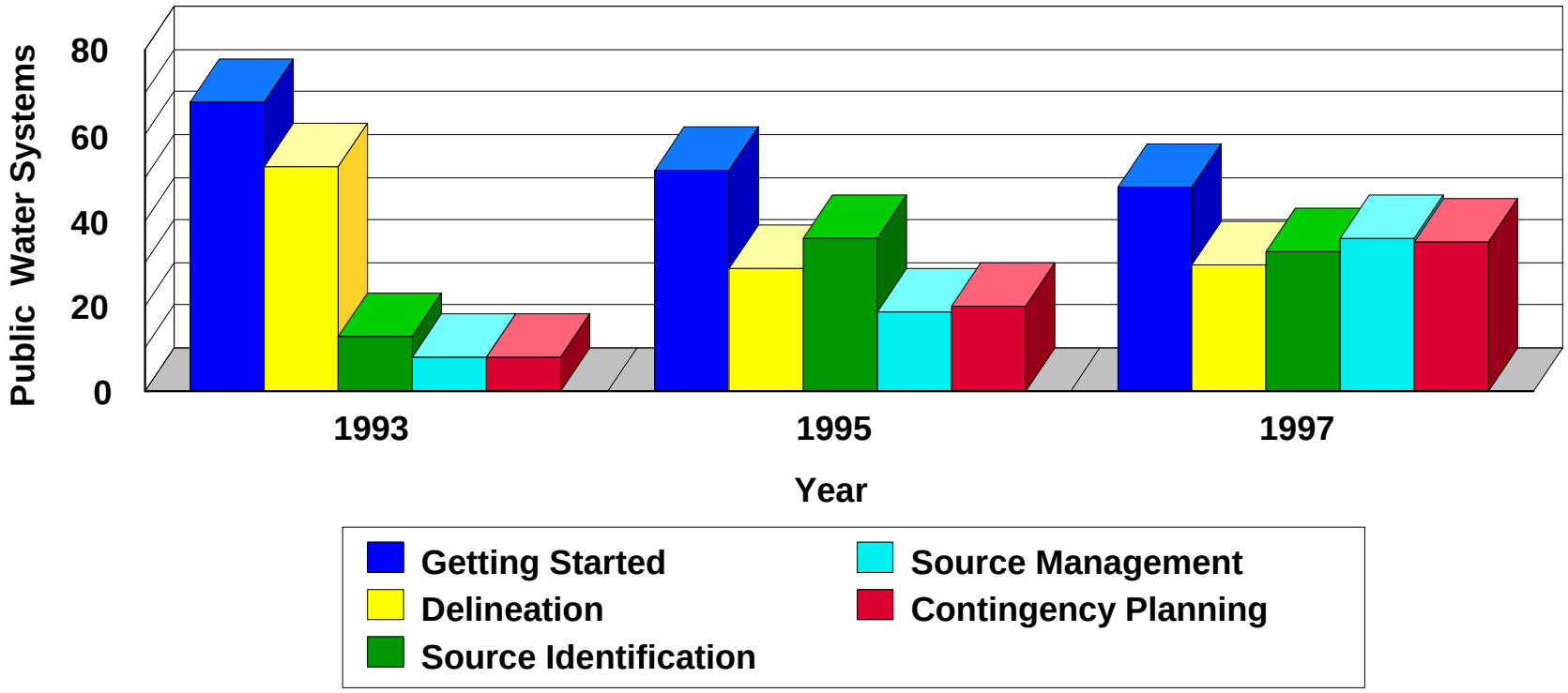
Wellhead Protection Implementation for North Carolina
Summary of Biennial Reporting Data

	Reporting Period 1991-1993			Reporting Period 1993-1995			Reporting Period 1995-1997		
	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs
Total number of ground water dependent PWS systems	N/A	N/A	N/A	N/A	N/A	N/A	1853	5606	7459
Total number of systems that have completed:									
Step 1: Getting Started	N/A	N/A	N/A	N/A	N/A	N/A	18	*	18
Step 2: Delineation	N/A	N/A	N/A	N/A	N/A	N/A	5	*	5
Step 3: Identify Sources	N/A	N/A	N/A	N/A	N/A	N/A	16	*	16
Step 4: Manage Sources	N/A	N/A	N/A	N/A	N/A	N/A	2	*	2
Step 5: Contingency Planning	N/A	N/A	N/A	N/A	N/A	N/A	*	*	0
Comments/Observations/Problems: State WHP Program approved 3/28/95									

* Data not available/or optional reporting

N/A - Not applicable (Program not approved during reporting period)

NORTH DAKOTA
WHP Implementation
Summary of Biennial Data



State Program Approved August 4, 1992

Wellhead Protection Implementation for North Dakota
Summary of Biennial Reporting Data

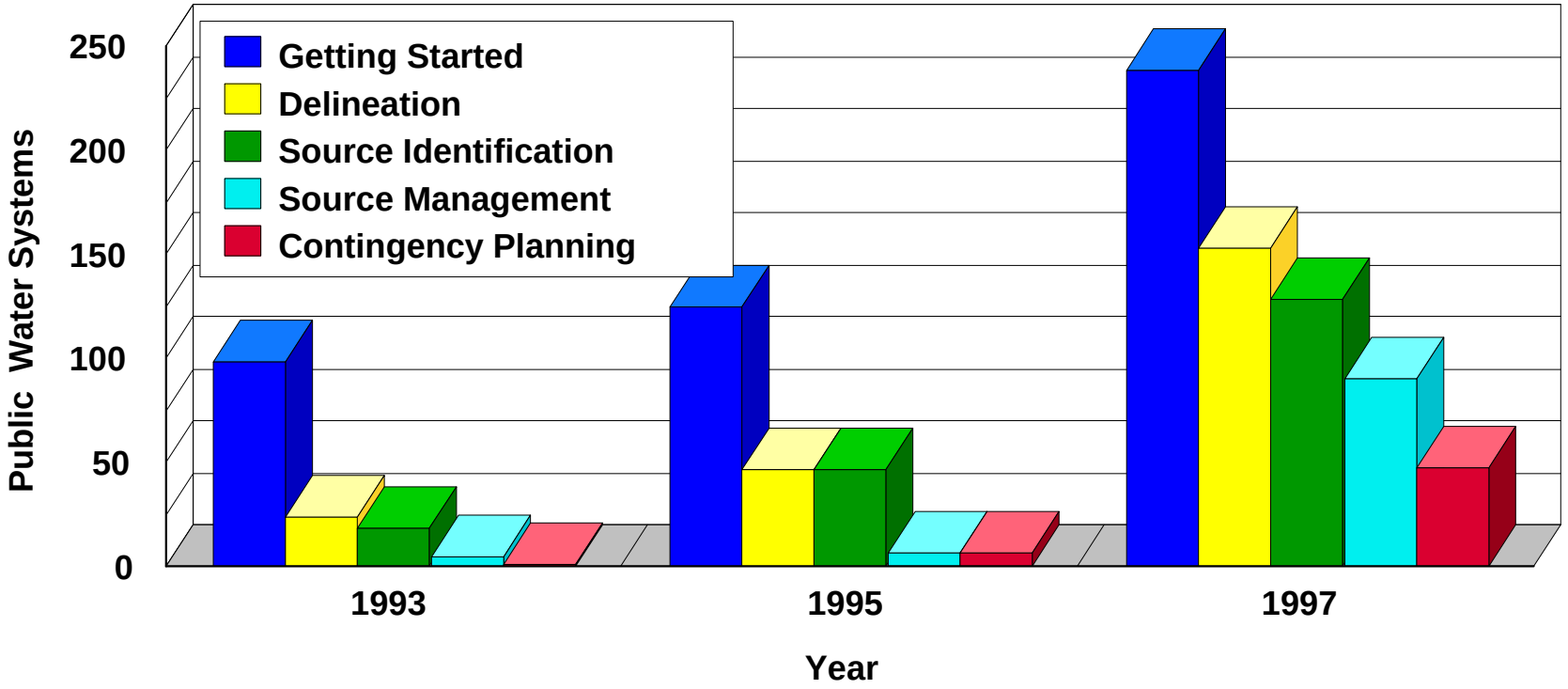
	Reporting Period 1991-1993			Reporting Period 1993-1995			Reporting Period 1995-1997		
	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs
Total number of ground water dependent PWS systems	*	*	*	*	*	*	212	*	452
Total number of systems that have completed:									
Step 1: Getting Started	*	*	68	*	*	52	*	*	48
Step 2: Delineation	*	*	53	*	*	29	*	*	30
Step 3: Identify Sources	*	*	13	*	*	36	*	*	33
Step 4: Manage Sources	*	*	8	*	*	19	*	*	36
Step 5: Contingency Planning	*	*	8	*	*	20	*	*	35
Comments/Observations/Problems: North Dakota's program was approved August 4, 1992.									

* Data not available/or optional reporting
N/A - Not applicable (Program not approved during reporting period)

OHIO

WHP Implementation

Summary of Biennial Data



State Program Approved May 19, 1992

Wellhead Protection Implementation for Ohio
Summary of Biennial Reporting Data

	Reporting Period 1991-1993			Reporting Period 1993-1995			Reporting Period 1995-1997		
	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs
Total number of ground water dependent PWS systems	*	*	*	1,304	5,179	6,483	1,164	4,722	5,886
Total number of systems that have completed:									
Step 1: Getting Started	99	*	99	123	2	125	239	*	239
Step 2: Delineation	24	*	24	46	1	47	153	*	153
Step 3: Identify Sources	19	*	19	46	1	47	129	*	129
Step 4: Manage Sources	5	*	5	7	0	7	90	*	90
Step 5: Contingency Planning	1	*	1	7	0	7	48	*	48

Comments/Observations/Problems: Ohio's program was approved in May, 1992 and reporting during the first period was optional. Any decrease in the total number of PWSs over the reporting periods may be due to regionalization of systems or more accurate database tracking.

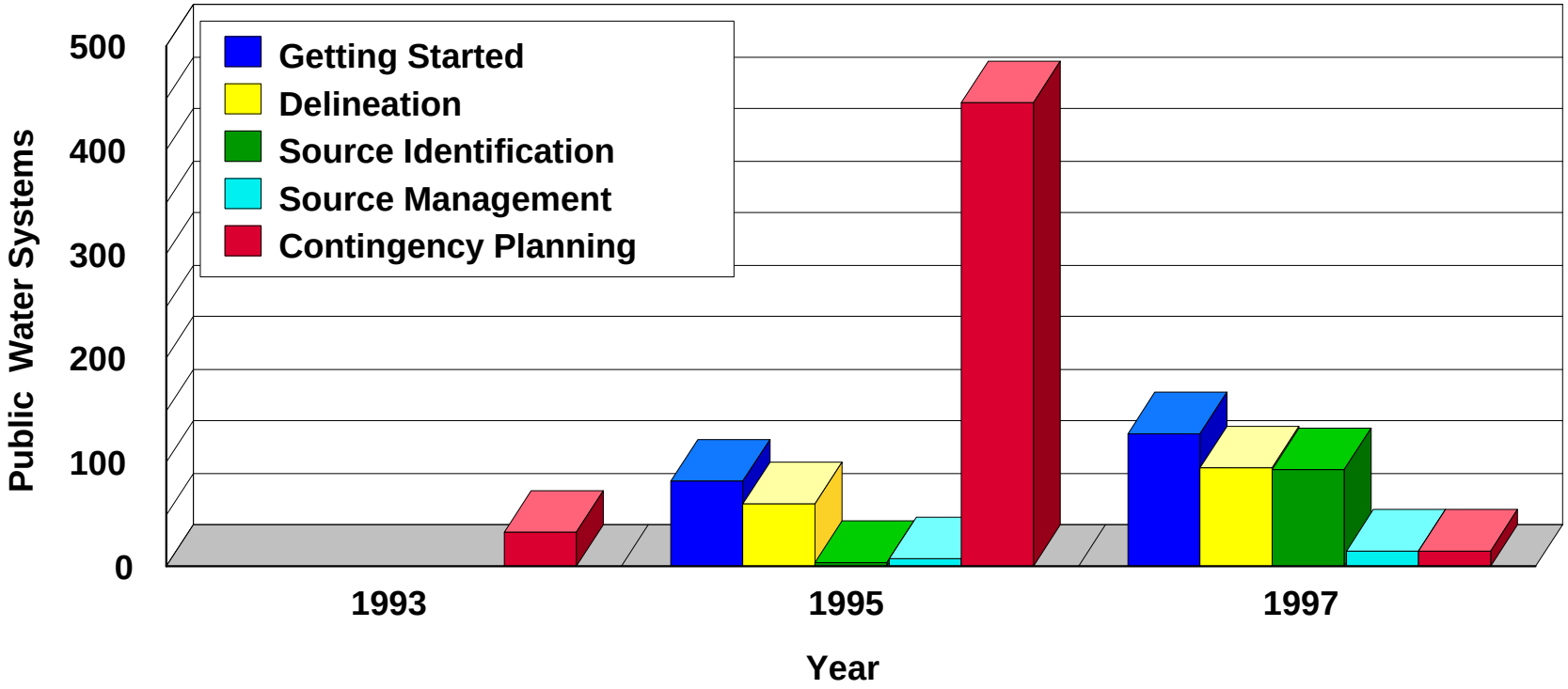
* Data not available/or optional reporting

N/A - Not applicable (Program not approved during reporting period)

O K L A H O M A

W H P I m p l e m e n t a t i o n

S u m m a r y o f B i e n n i a l D a t a



State Program Approved September 27, 1990

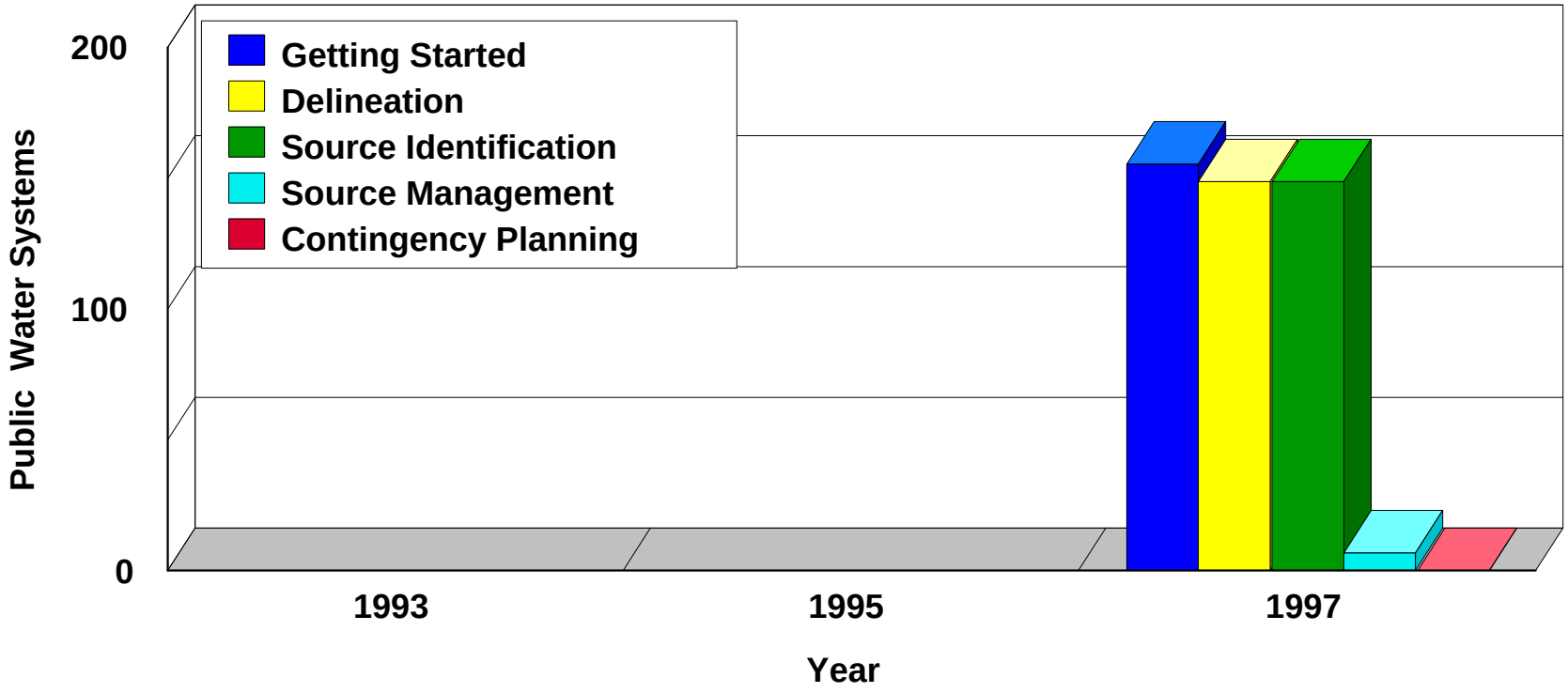
Wellhead Protection Implementation for Oklahoma
Summary of Biennial Reporting Data

	Reporting Period 1991-1993			Reporting Period 1993-1995			Reporting Period 1995-1997		
	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs
Total number of ground water dependent PWS systems	1,085	483	1,568	483	445	928	480	400	880
Total number of systems that have completed:									
Step 1: Getting Started	*	*	*	2	5	83	11	3	128
Step 2: Delineation	*	*	*	1	0	61	8	3	95
Step 3: Identify Sources	*	*	*	*	*	4	8	3	93
Step 4: Manage Sources	*	*	*	*	*	9	0	1	15
Step 5: Contingency Planning	*	*	33	*	*	446	0	1	15
Comments/Observations/Problems:									

* Data not available/or optional reporting

N/A - Not applicable (Program not approved during reporting period)

PENNSYLVANIA
WHP Implementation
Summary of Biennial Data



State Program Approved March 23,1999

Wellhead Protection Implementation for Pennsylvania
Summary of Biennial Reporting Data

	Reporting Period 1991-1993			Reporting Period 1993-1995			Reporting Period 1995-1997		
	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs
Total number of ground water dependent PWS systems	N/A	N/A	N/A	N/A	N/A	N/A	1,769	8,267	10,110
Total number of systems that have completed:									
Step 1: Getting Started	N/A	N/A	N/A	N/A	N/A	N/A	154	2	156
Step 2: Delineation	N/A	N/A	N/A	N/A	N/A	N/A	147	2	149
Step 3: Identify Sources	N/A	N/A	N/A	N/A	N/A	N/A	147	2	149
Step 4: Manage Sources	N/A	N/A	N/A	N/A	N/A	N/A	7	0	7
Step 5: Contingency Planning	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0

Comments/Observations/Problems: During the biennial periods of '91-'93, '93-'95, and '95-'97, Pennsylvania did not have an approved Wellhead Protection Program. The numbers for the "ground water dependent PWS systems" were not from the biennial report. The numbers came from a "working points" memo to the Source Water Citizen Advisory Committee members dated 9/98.

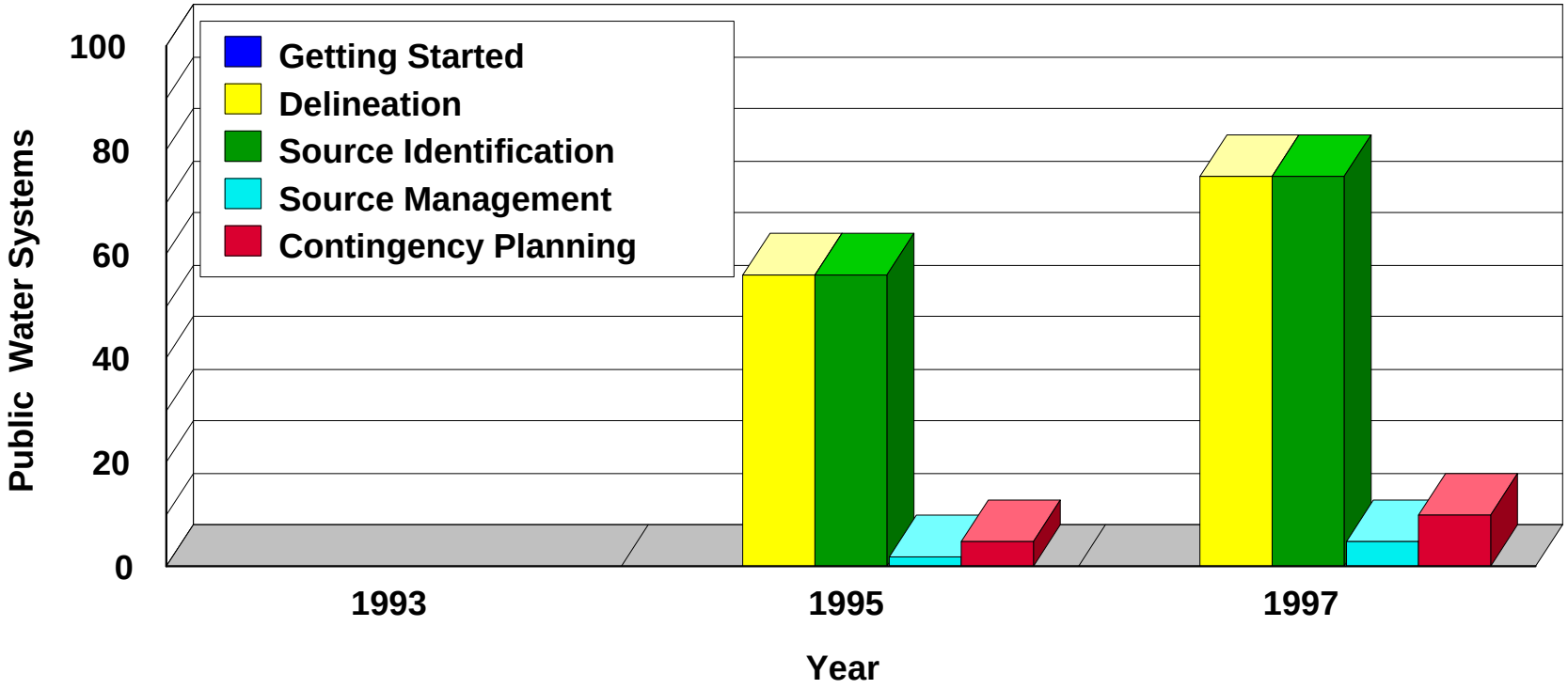
* Data not available/or optional reporting

N/A - Not applicable (Program not approved during reporting period)

PUERTO RICO

WHP Implementation

Summary of Biennial Data



State Program Approved April 5, 1991

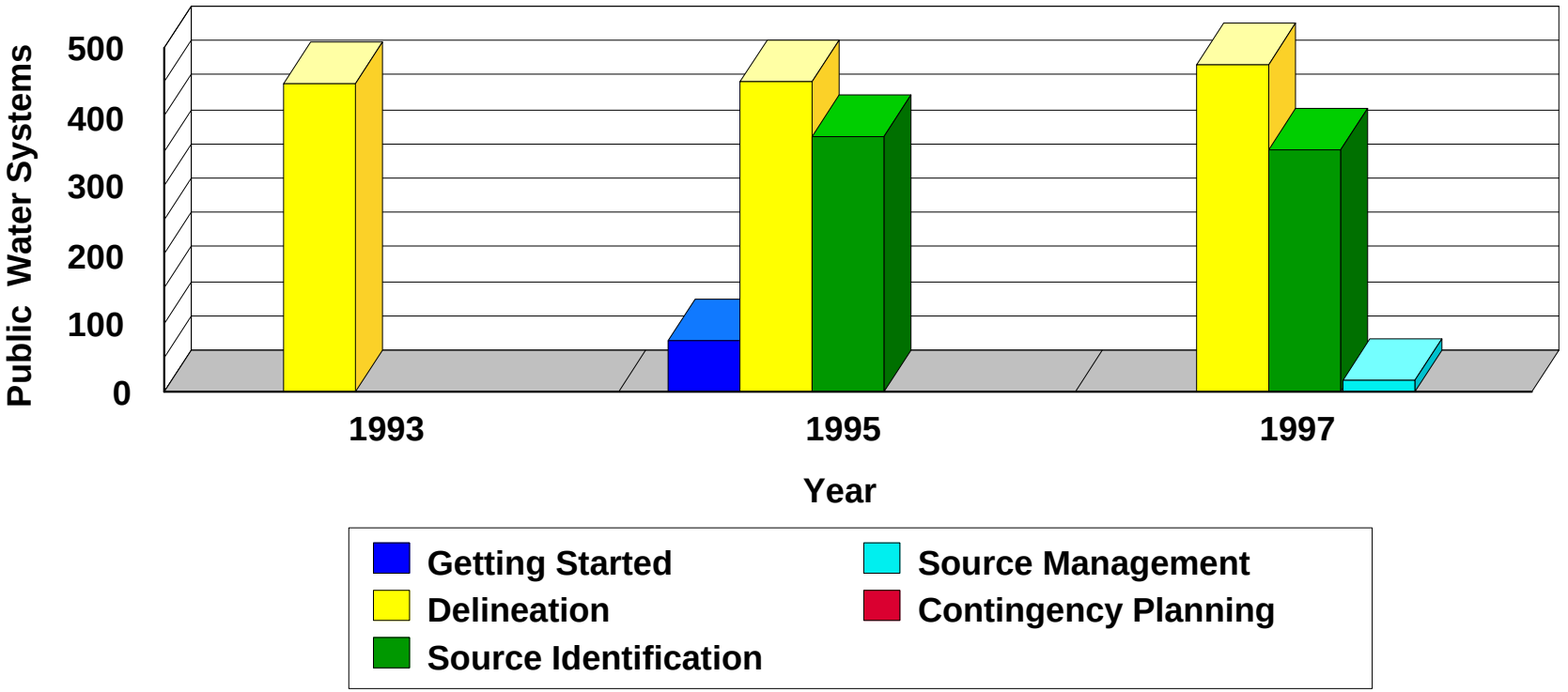
Wellhead Protection Implementation for Puerto Rico
Summary of Biennial Reporting Data

	Reporting Period 1991-1993			Reporting Period[1] 1993-1995			Reporting Period[1] 1995-1997		
	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs
Total number of ground water dependent PWS systems	*	*	*	208	*	208	194	*	194
Total number of systems that have completed:									
Step 1: Getting Started	*	*	*	*	*	*	50	*	50
Step 2: Delineation	*	*	*	56	*	56	75	*	75
Step 3: Identify Sources	*	*	*	56	*	56	90	*	90
Step 4: Manage Sources	*	*	*	2	*	2	30	*	30
Step 5: Contingency Planning	*	*	*	5	*	5	10	*	10

Comments/Observations/Problems: 1) Puerto Rico has systems operated by the quasi-public agency PRASA as well as private, or "non-PRASA" systems. Unfortunately, PREQB often equates the term "PWS systems" with PRASA systems" and "CWS systems" with "non-PRASA systems, causing great confusion. The 1995-7 Biennial Report did not contain data on the number of systems achieving the five steps.

* Data not available/or optional reporting
N/A - Not applicable (Program not approved during reporting period)

RHODE ISLAND
WHP Implementation
Summary of Biennial Data



State Program Approved March 19, 1990

Wellhead Protection Implementation for Rhode Island
Summary of Biennial Reporting Data

	Reporting Period 1991-1993			Reporting Period 1993-1995			Reporting Period 1995-1997		
	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs
Total number of ground water dependent PWS systems	*	*	449	75	400	475	73	408	481
Total number of systems that have completed:									
Step 1: Getting Started	*	*	*	75	*	75	*	*	*
Step 2: Delineation	*	*	449	52	400	452	68	408	476
Step 3: Identify Sources	*	*	*	2	370	372	61	291	352
Step 4: Manage Sources	*	*	*	*	*	*	4	15	19
Step 5: Contingency Planning	*	*	*	*	*	*	*	*	*

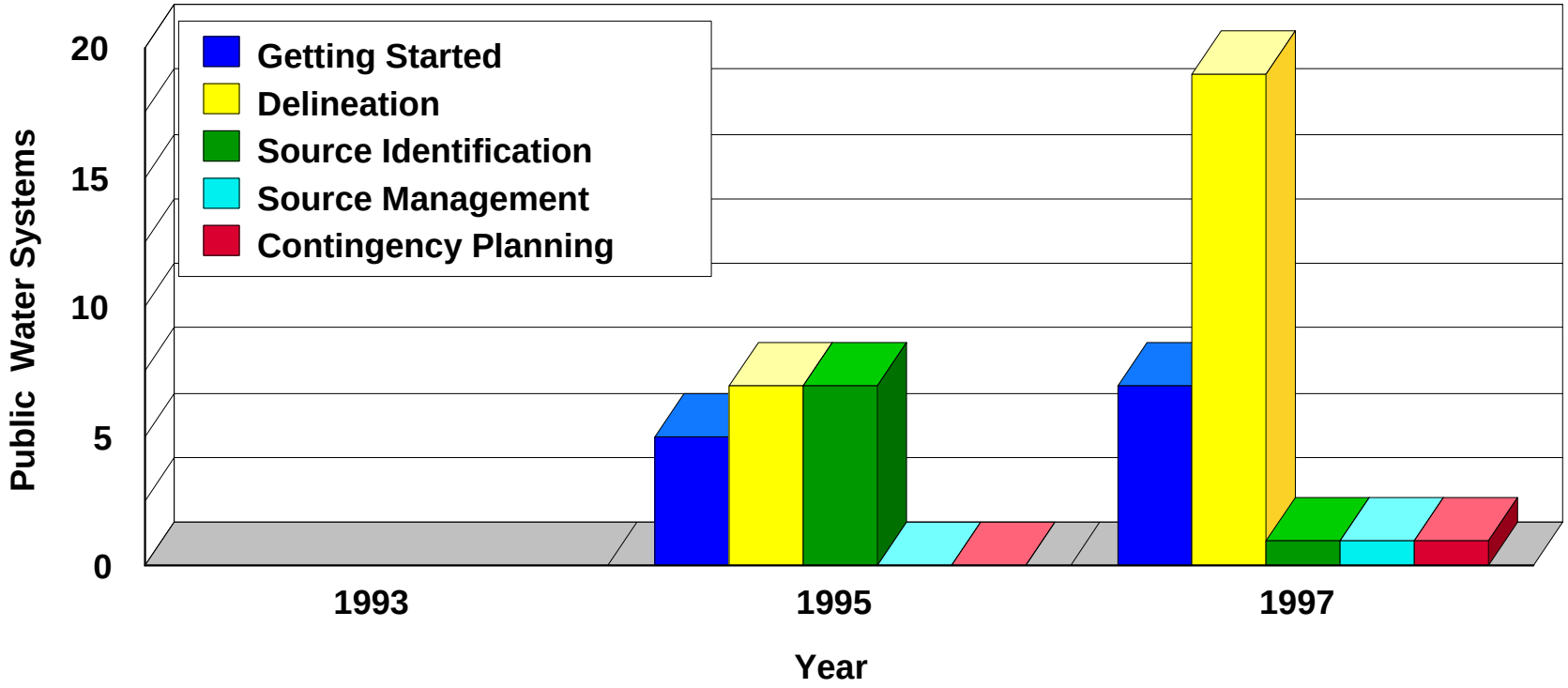
Comments/Observations/Problems: Rhode Island does not track "Getting Started" activities. In the 1991-1993 reporting period, it was reported that 607 wellhead protection areas were delineated which corresponds to all the public wells in the state. Contingency planning authority no longer resides with the Rhode Island agency responsible for WHP, the Rhode Island Department of Environmental Management. However, it was reported that by the end of 1997, 7 of the large systems that were required to have contingency plans had approved plans.

* Data not available/or optional reporting

SOUTH CAROLINA

WHP Implementation

Summary of Biennial Data



State Program Approved September 28, 1992

Wellhead Protection Implementation for South Carolina
Summary of Biennial Reporting Data

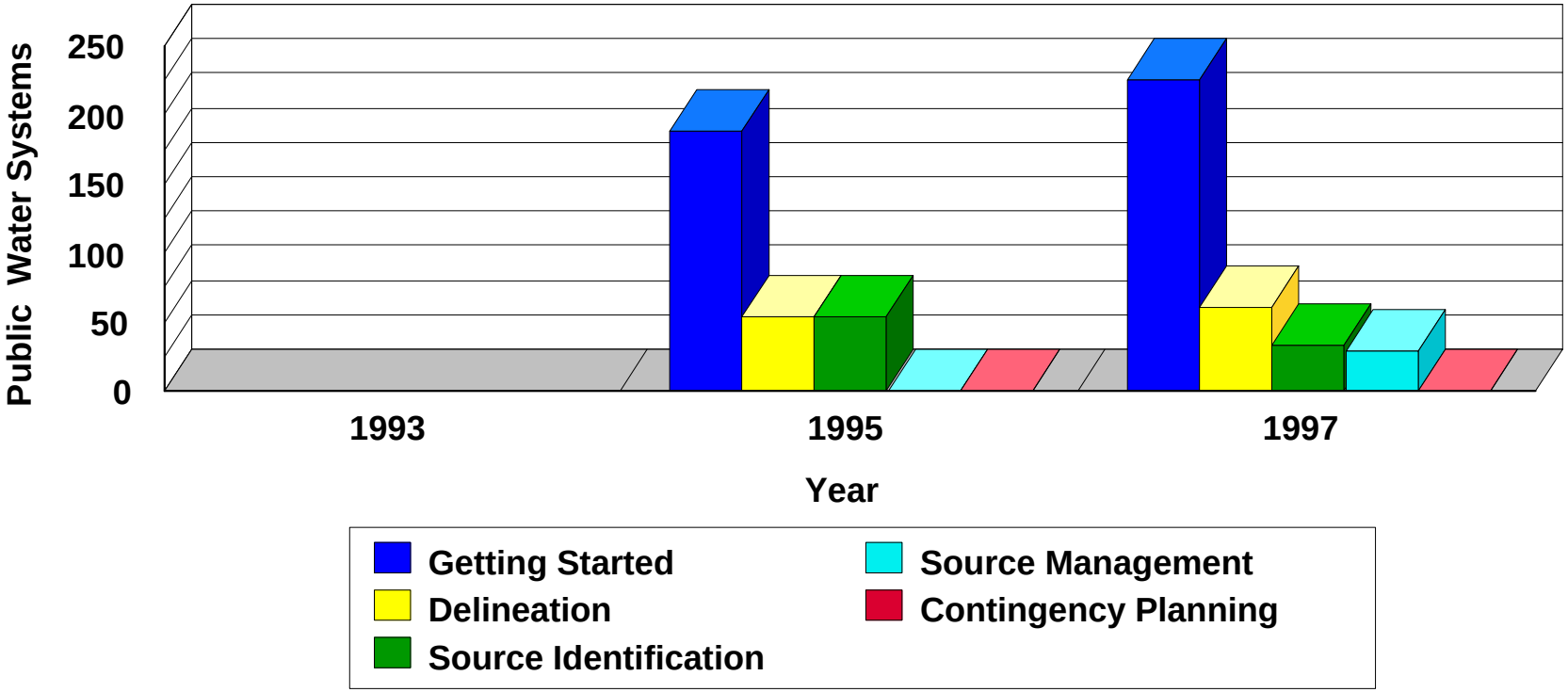
	Reporting Period 1991-1993			Reporting Period 1993-1995			Reporting Period 1995-1997		
	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs
Total number of ground water dependent PWS systems	N/A	N/A	N/A	577	951	1528	559	865	1424
Total number of systems that have completed:									
Step 1: Getting Started	N/A	N/A	N/A	5	*	5	7	*	7
Step 2: Delineation	N/A	N/A	N/A	7	*	7	19	*	19
Step 3: Identify Sources	N/A	N/A	N/A	7	*	7	1	*	1
Step 4: Manage Sources	N/A	N/A	N/A	*	*	0	1	*	1
Step 5: Contingency Planning	N/A	N/A	N/A	*	*	0	1	*	1
Comments/Observations/Problems: State WHP Program approved 9/28/92									

* Data not available/or optional reporting
N/A - Not applicable (Program not approved during reporting period)

SOUTH DAKOTA

WHP Implementation

Summary of Biennial Data



State Program Approved September 10, 1992

Wellhead Protection Implementation for South Dakota
Summary of Biennial Reporting Data

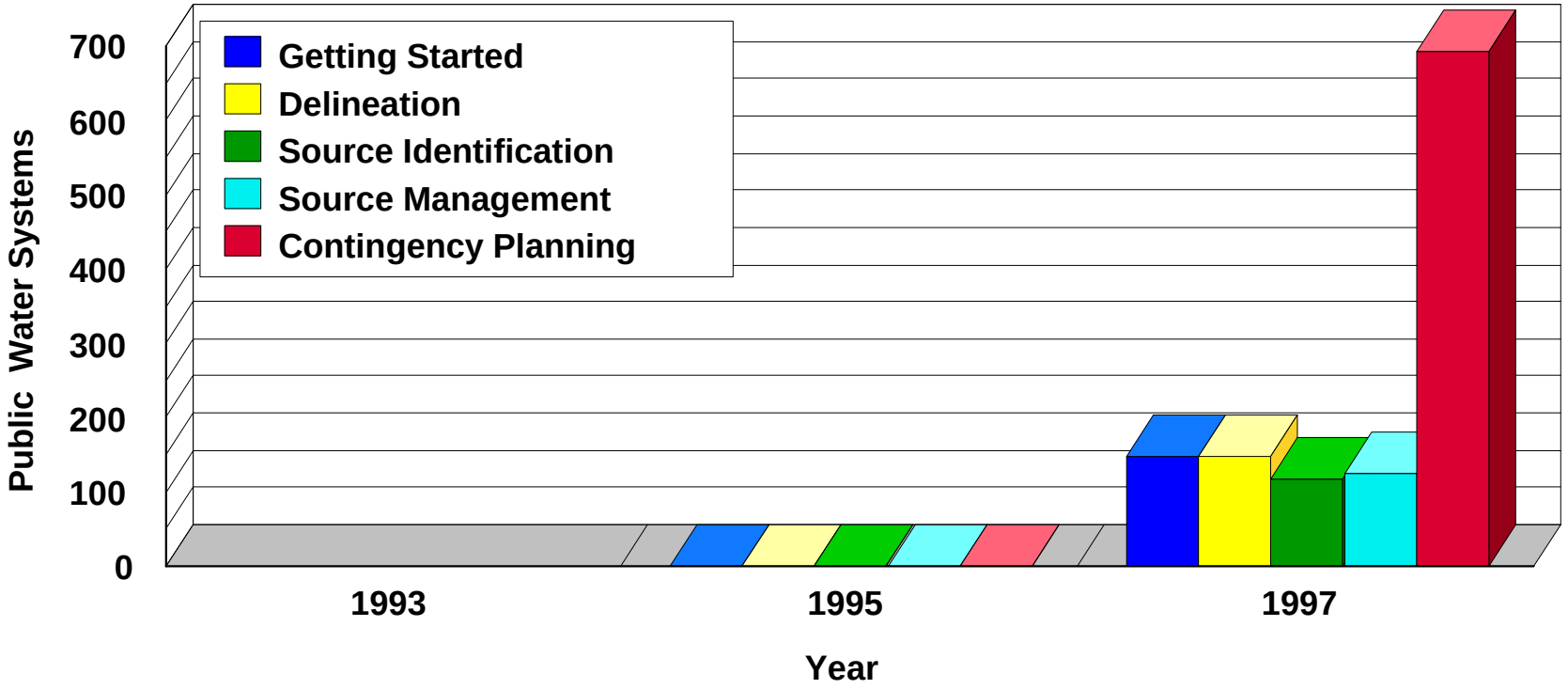
	Reporting Period 1991-1993			Reporting Period 1993-1995			Reporting Period 1995-1997		
	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs
Total number of ground water dependent PWS systems	*	*	*	*	*	*	316	*	584
Total number of systems that have completed:									
Step 1: Getting Started	*	*	*	*	*	189	*	*	226
Step 2: Delineation	*	*	*	*	*	54	*	*	61
Step 3: Identify Sources	*	*	*	*	*	54	*	*	34
Step 4: Manage Sources	*	*	*	*	*	1	*	*	30
Step 5: Contingency Planning	*	*	*	*	*	1	*	*	1
Comments/Observations/Problems: South Dakota's program was approved on September 30, 1992									

* Data not available/or optional reporting
N/A - Not applicable (Program not approved during reporting period)

TENNESSEE

WHP Implementation

Summary of Biennial Data



State Program Approved July 27, 1994

Wellhead Protection Implementation for Tennessee
Summary of Biennial Reporting Data

	Reporting Period 1991-1993			Reporting Period 1993-1995			Reporting Period 1995-1997		
	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs
Total number of ground water dependent PWS systems	N/A	N/A	N/A	*	*	*	280	588	868
Total number of systems that have completed:									
Step 1: Getting Started	N/A	N/A	N/A	*	*	0	148	*	148
Step 2: Delineation	N/A	N/A	N/A	*	*	0	148	*	148
Step 3: Identify Sources	N/A	N/A	N/A	*	*	0	119	*	119
Step 4: Manage Sources	N/A	N/A	N/A	*	*	0	127	*	127
Step 5: Contingency Planning	N/A	N/A	N/A	*	*	0	127	566	693
Comments/Observations/Problems: State WHP Program approved 7/27/94									

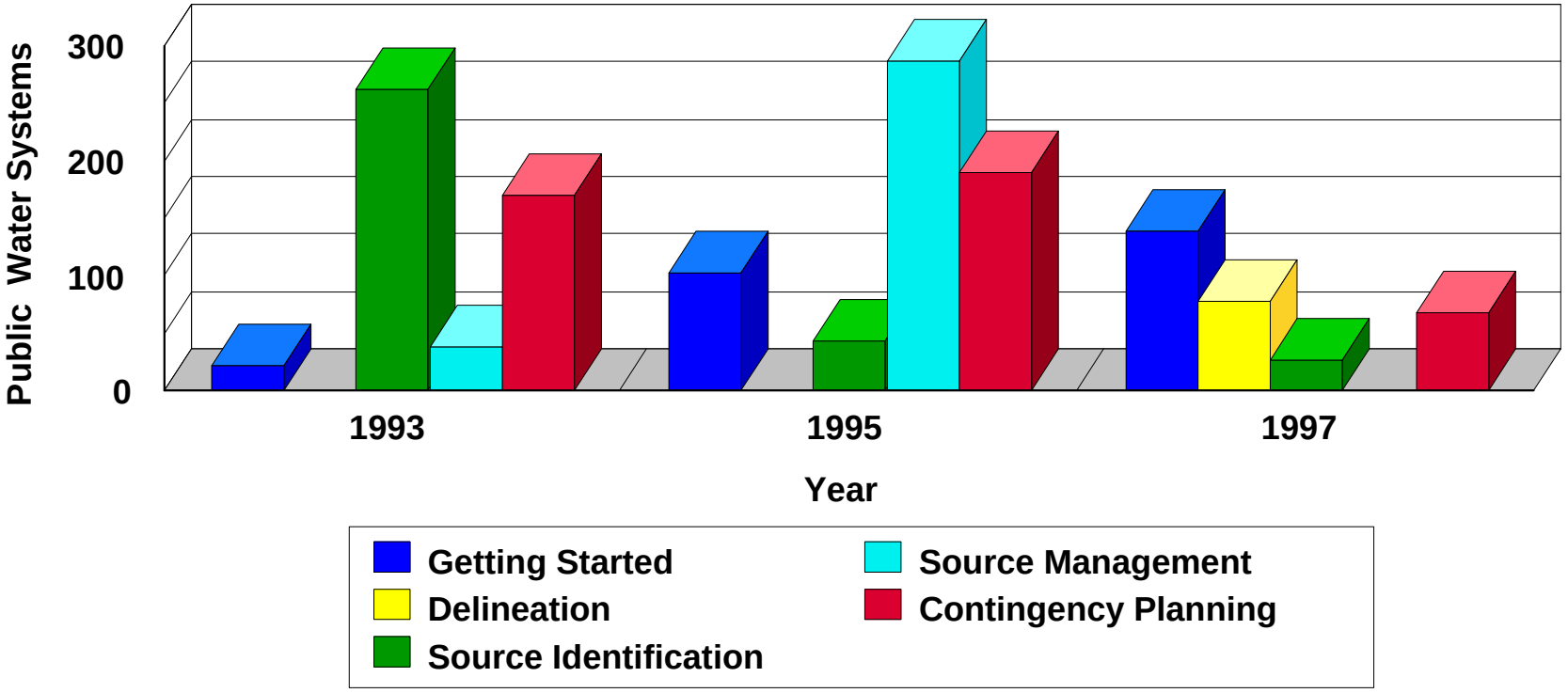
* Data not available/or optional reporting

N/A - Not applicable (Program not approved during reporting period)

TEXAS

WHP Implementation

Summary of Biennial Data



State Program Approved March 16, 1990

Wellhead Protection Implementation for Texas
Summary of Biennial Reporting Data

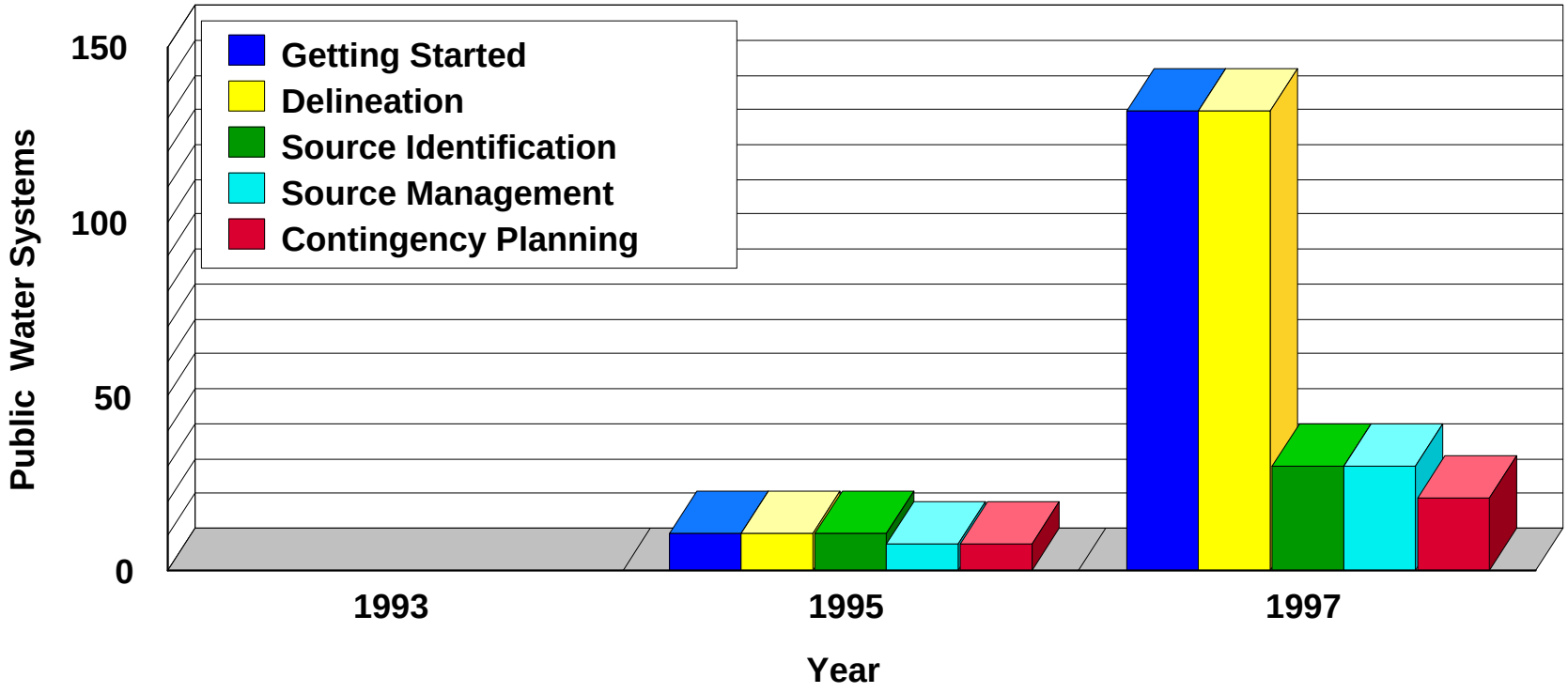
	Reporting Period 1991-1993			Reporting Period 1993-1995			Reporting Period 1995-1997		
	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs
Total number of ground water dependent PWS systems	*	*	7,741	3,621	2,123	5,744	3,646	2,019	5,665
Total number of systems that have completed:									
Step 1: Getting Started	*	*	22	98	5	103	120	20	140
Step 2: Delineation	*	*	*	*	*	*	77	2	79
Step 3: Identify Sources	*	*	263	43	1	44	28	0	28
Step 4: Manage Sources	*	*	38	225	62	287	*	*	*
Step 5: Contingency Planning	*	*	171	148	43	191	61	7	68
Comments/Observations/Problems:									

* Data not available/or optional reporting
N/A - Not applicable (Program not approved during reporting period)

U T A H

W H P I m p l e m e n t a t i o n

S u m m a r y o f B i e n n i a l D a t a



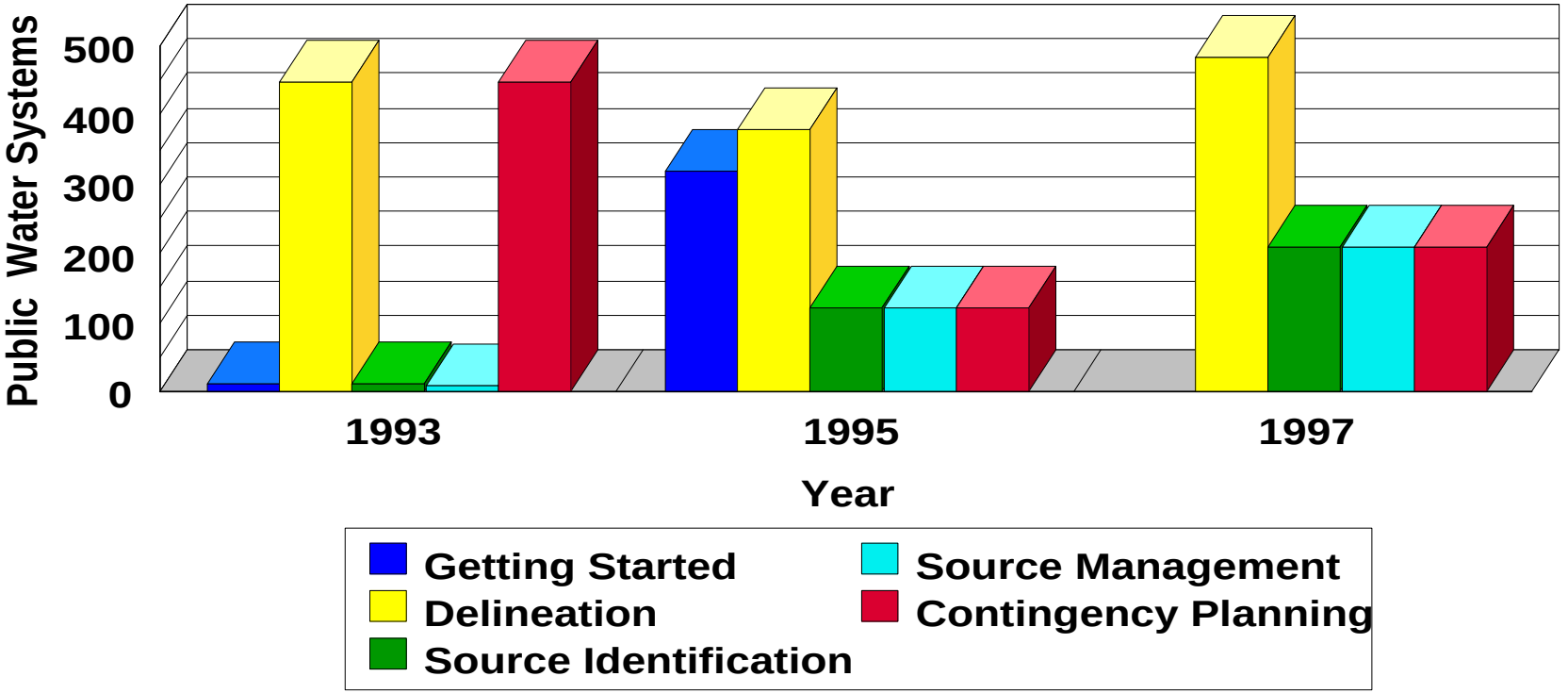
State Program Approved September 17, 1992

Wellhead Protection Implementation for Utah
Summary of Biennial Reporting Data

	Reporting Period 1991-1993			Reporting Period 1993-1995			Reporting Period 1995-1997		
	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs
Total number of ground water dependent PWS systems	*	*	*	*	*	*	387	*	879
Total number of systems that have completed:									
Step 1: Getting Started	*	*	*	*	*	11	*	*	132
Step 2: Delineation	*	*	*	*	*	11	*	*	132
Step 3: Identify Sources	*	*	*	*	*	11	*	*	30
Step 4: Manage Sources	*	*	*	*	*	8	*	*	30
Step 5: Contingency Planning	*	*	*	*	*	8	*	*	21
Comments/Observations/Problems: Utah's program was approved on September 17, 1992.									

* Data not available/or optional reporting
N/A - Not applicable (Program not approved during reporting period)

VERMONT
WHP Implementation
Summary of Biennial Data



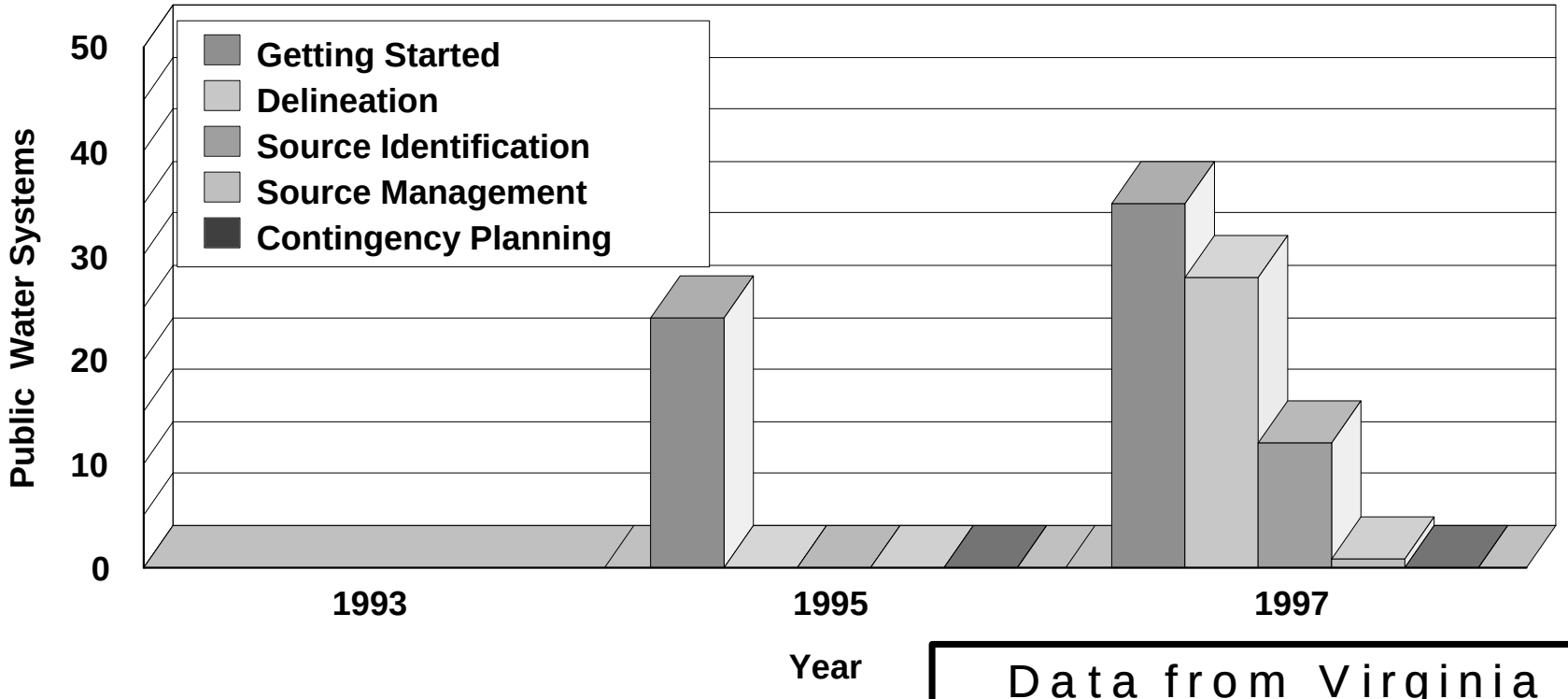
State Program Approved September 13, 1990

Wellhead Protection Implementation for Vermont
Summary of Biennial Reporting Data

	Reporting Period 1991-1993			Reporting Period 1993-1995			Reporting Period 1995-1997		
	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs
Total number of ground water dependent PWS systems	*	*	*	380	790	1170	408	828	1236
Total number of systems that have completed:									
Step 1: Getting Started	*	*	13	319	*	319	*	*	*
Step 2: Delineation	*	*	450	319	61	380	408	76	484
Step 3: Identify Sources	*	*	13	61	61	122	134	76	210
Step 4: Manage Sources	*	*	10	61	61	122	134	76	210
Step 5: Contingency Planning	*	*	450	61	61	122	134	76	210
Comments/Observations/Problems: All PWSs in Vermont have contingency plans. Vermont does not track "Getting started" activities in 1995 and 1997. In 1993, the information reported is for WHPAs, not systems.									

* Data not available/or optional reporting

VIRGINIA
WHP Implementation
Summary of Biennial Data



No Expected Date for State Program Approval

Data from Virginia
Submitted Voluntarily

Wellhead Protection Implementation for Virginia
Summary of Biennial Reporting Data

	Reporting Period 1991-1993			Reporting Period 1993-1995			Reporting Period 1995-1997		
	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs
Total number of ground water dependent PWS systems	N/A	N/A	N/A	1176	2678	3854	1132	2580	3712
Total number of systems that have completed:									
Step 1: Getting Started	N/A	N/A	N/A	24	*	24	35	*	35
Step 2: Delineation	N/A	N/A	N/A	0	*	0	28	*	28
Step 3: Identify Sources	N/A	N/A	N/A	0	*	0	12	*	12
Step 4: Manage Sources	N/A	N/A	N/A	0	*	0	1	*	1
Step 5: Contingency Planning	N/A	N/A	N/A	0	*	0	0	*	0
Comments/Observations/Problems: Although biennial reports were submitted, Virginia does not have an approved Wellhead Protection program.									

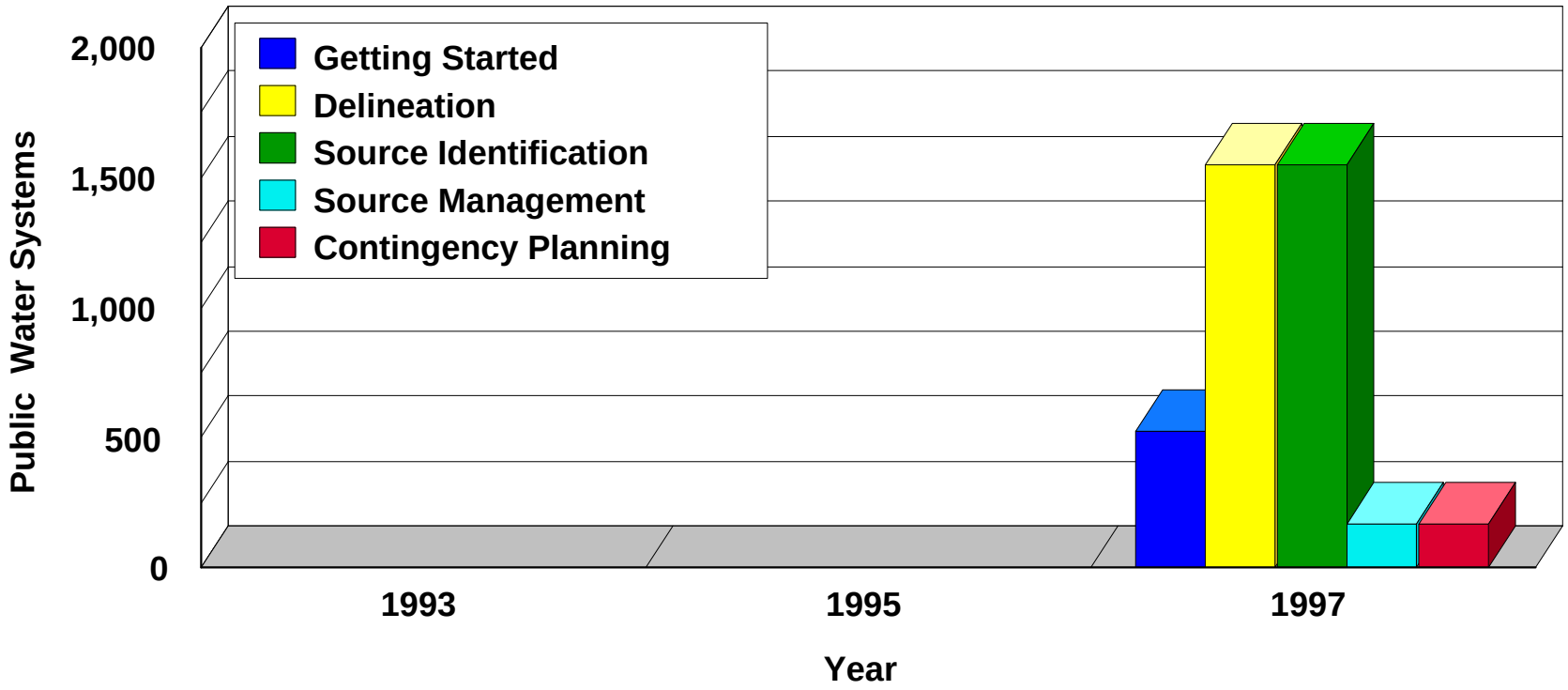
* Data not available/or optional reporting

N/A - Not applicable (Program not approved during reporting period)

WASHINGTON

WHP Implementation

Summary of Biennial Data



State Program Approved February 24, 1994

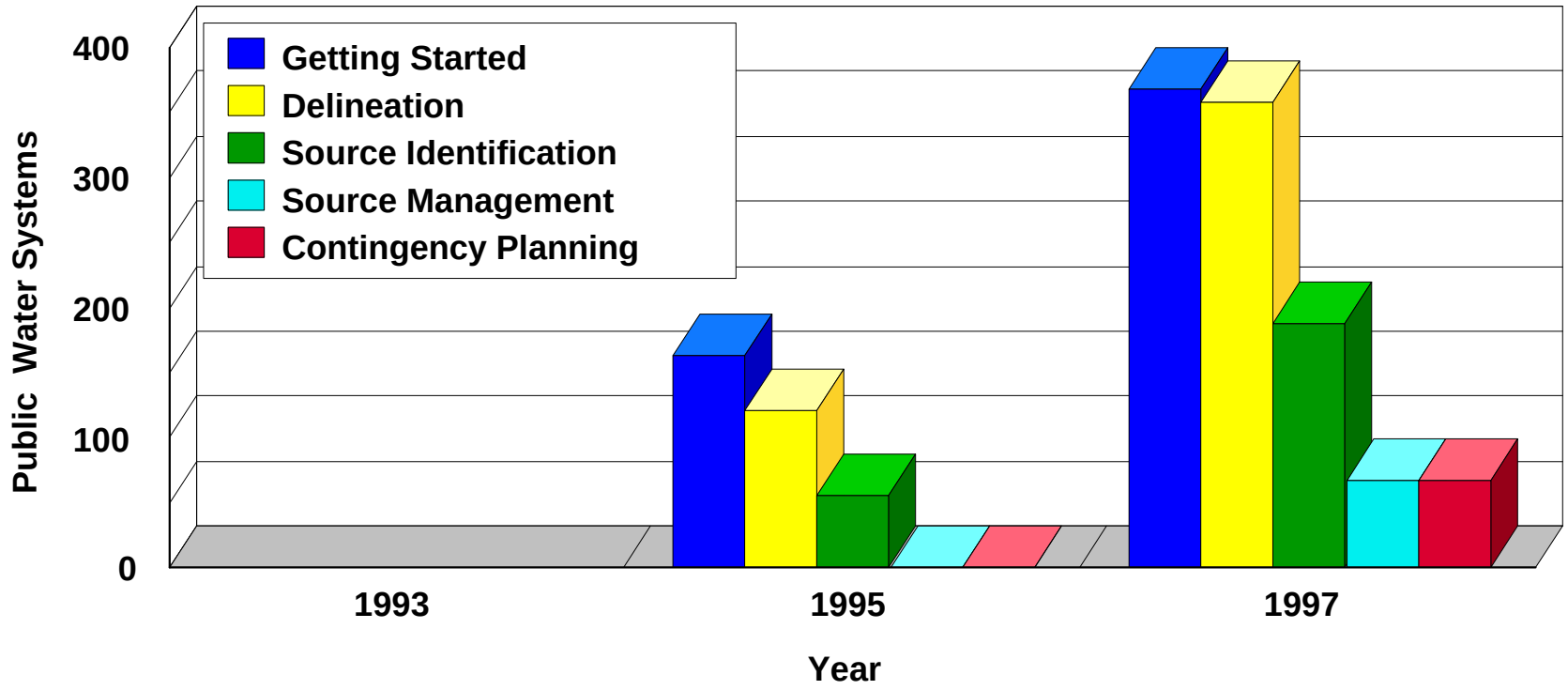
Wellhead Protection Implementation for Washington
Summary of Biennial Reporting Data

	Reporting Period 1991-1993			Reporting Period 1993-1995			Reporting Period 1995-1997		
	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs
Total number of ground water dependent PWS systems	N/A	N/A	N/A	2203	1803	4042	2154	1781	3935
Total number of systems that have completed:									
Step 1: Getting Started	N/A	N/A	N/A	*	*	*	*	*	529
Step 2: Delineation	N/A	N/A	N/A	*	*	*	*	*	1554
Step 3: Identify Sources	N/A	N/A	N/A	*	*	*	*	*	1554
Step 4: Manage Sources	N/A	N/A	N/A	*	*	*	*	*	170
Step 5: Contingency Planning	N/A	N/A	N/A	*	*	*	*	*	170
Comments/Observations/Problems: Washington's program was approved February 24, 1994									

* Data not available/or optional reporting

N/A - Not applicable (Program not approved during reporting period)

WEST VIRGINIA
WHP Implementation
Summary of Biennial Data



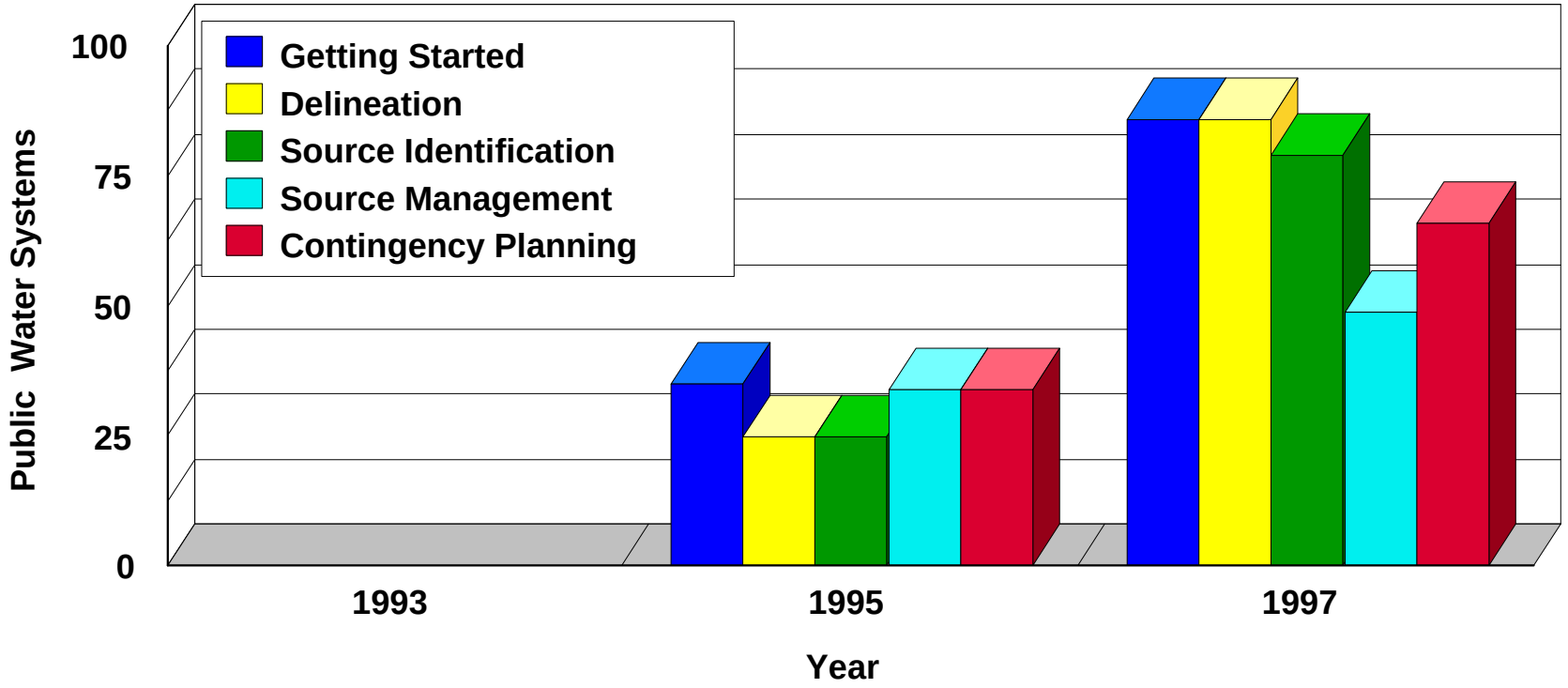
State Program Approved December 17, 1992

Wellhead Protection Implementation for West Virginia
Summary of Biennial Reporting Data

	Reporting Period 1991-1993			Reporting Period 1993-1995			Reporting Period 1995-1997		
	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs
Total number of ground water dependent PWS systems	N/A	N/A	N/A	318	1043	1361	305	883	1188
Total number of systems that have completed:									
Step 1: Getting Started	N/A	N/A	N/A	151	12	163	238	131	369
Step 2: Delineation	N/A	N/A	N/A	109	12	121	234	125	359
Step 3: Identify Sources	N/A	N/A	N/A	56	0	56	145	43	188
Step 4: Manage Sources	N/A	N/A	N/A	0	0	0	57	11	68
Step 5: Contingency Planning	N/A	N/A	N/A	0	0	0	57	11	68
Comments/Observations/Problems:									

* Data not available/or optional reporting
N/A - Not applicable (Program not approved during reporting period)

WISCONSIN
WHP Implementation
Summary of Biennial Data



State Program Approved September 23, 1993

Wellhead Protection Implementation for Wisconsin
Summary of Biennial Reporting Data

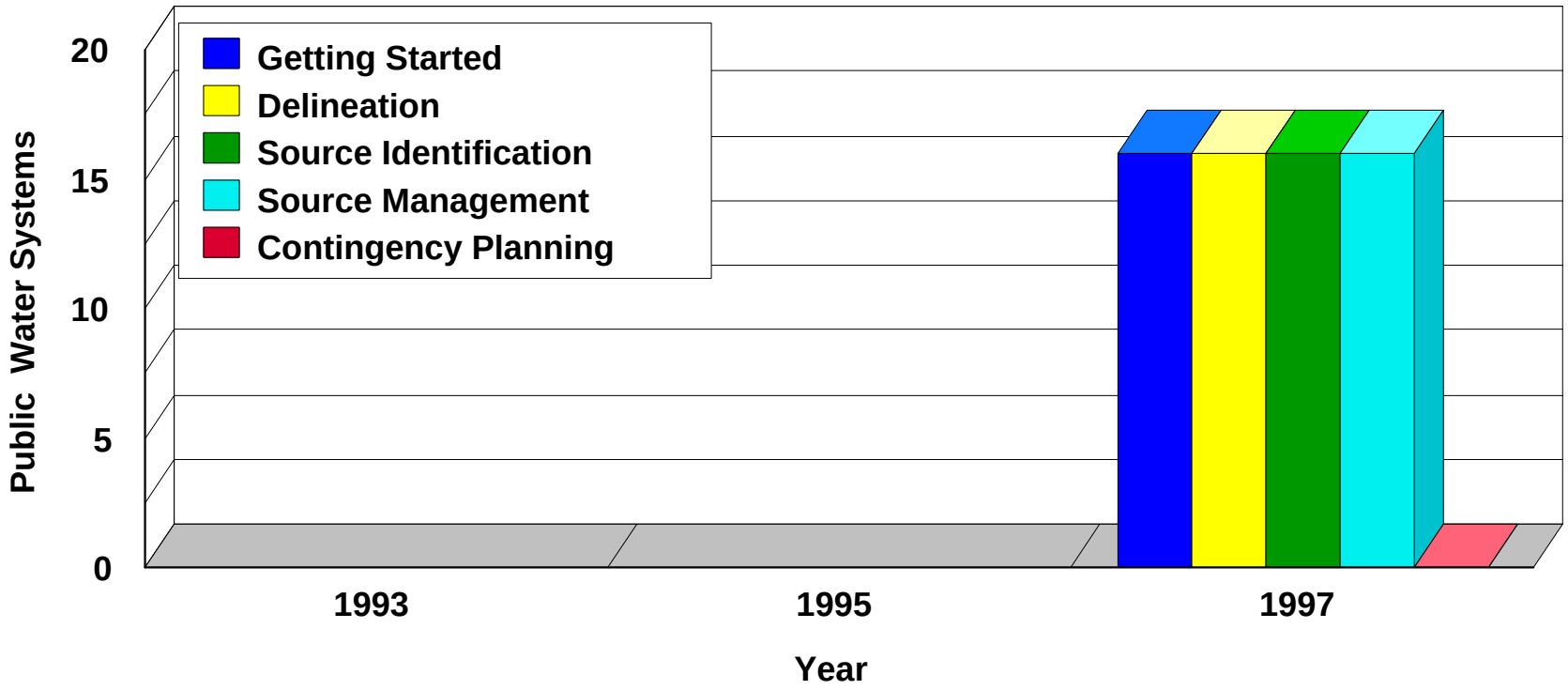
	Reporting Period 1991-1993			Reporting Period 1993-1995			Reporting Period 1995-1997		
	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs
Total number of ground water dependent PWS systems	N/A	N/A	N/A	558	11,200	11,758	1,120	10,744	11,864
Total number of systems that have completed:									
Step 1: Getting Started	N/A	N/A	N/A	35	*	35	86	*	86
Step 2: Delineation	N/A	N/A	N/A	25	*	25	86	*	86
Step 3: Identify Sources	N/A	N/A	N/A	25	*	25	79	*	79
Step 4: Manage Sources	N/A	N/A	N/A	34	*	34	49	*	49
Step 5: Contingency Planning	N/A	N/A	N/A	34	*	34	66	*	66

Comments/Observations/Problems: Wisconsin's WHPP was approved in September, 1993. The dramatic increase in the number of CWS systems between reporting periods appears to be due to Wisconsin's distinction between municipal and non-municipal wells that fall under the Federal definition of community water supply. The reporting for the 1993-1995 is believed to reflect only the municipal systems while the 1995-1997 more accurately reflects the community water supply systems, both municipal and non-municipal.

* Data not available/or optional reporting

N/A - Not applicable (Program not approved during reporting period)

WYOMING
WHP Implementation
Summary of Biennial Data



State Program Approved September 18, 1997

Wellhead Protection Implementation for Wyoming
Summary of Biennial Reporting Data

	Reporting Period 1991-1993			Reporting Period 1993-1995			Reporting Period 1995-1997		
	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs	CWSs	NCWSs	Total PWSs
Total number of ground water dependent PWS systems	N/A	N/A	N/A	N/A	N/A	N/A	162	*	479
Total number of systems that have completed:									
Step 1: Getting Started	N/A	N/A	N/A	N/A	N/A	N/A	*	*	16
Step 2: Delineation	N/A	N/A	N/A	N/A	N/A	N/A	*	*	16
Step 3: Identify Sources	N/A	N/A	N/A	N/A	N/A	N/A	*	*	16
Step 4: Manage Sources	N/A	N/A	N/A	N/A	N/A	N/A	*	*	16
Step 5: Contingency Planning	N/A	N/A	N/A	N/A	N/A	N/A	*	*	0
Comments/Observations/Problems: Wyoming's program was approved on September 18, 1997.									

* Data not available/or optional reporting

N/A - Not applicable (Program not approved during reporting period)